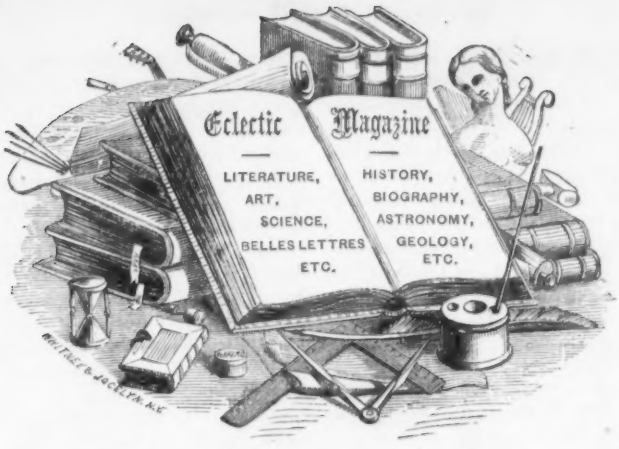

Eclectic Magazine

OF

FOREIGN LITERATURE, SCIENCE, AND ART.

New Series, Vol. X., No. 2. | AUGUST, 1869. | Old Series Complete in 63 vols.

Quarterly Review.

THE RELIGIOUS WARS OF FRANCE.*

THE history of Protestantism in France has not yet received that attention which the subject demands at the hands of either English or French writers. M. Michelet and M. Henri Martin have nevertheless by sympathetic treatment contributed much towards restoring in its true color this portion of the history of France, and rendering justice to the memory of the Protestants whose portraits had hitherto been drawn by their enemies. Ranke, in Germany, had previously produced three volumes containing a history of the great contest between the Catholics and the Huguenots, by which the former writers have largely profited, and which have all the merits of impartiality, good judgment, and patient examination of original documents, which distinguish that eminent historian. Nevertheless a complete and unprejudiced account of the rise and fall of Protestantism in France is still to be looked for. Meanwhile the works, the titles of which stand at the head of this article, form valuable contributions to the history of this period. Mr. White's volume, "The Massacre of St. Bartholomew," is a valuable fragment of historical narrative. We should have desired a more complete account of the rise and spread of Protestantism in France, and of the internal organization of the Huguenot party. He has, as his preface informs us, searched the public records of Montpellier, Nismes, Grenoble, and other cities for information, but it is to be regretted that he has overlooked La Rochelle, which was for so long a period the capital and head-quarters of the Huguenot party. The book is however a substan-

1. *The Massacre of St. Bartholomew, preceded by a History of the Religious Wars in the Reign of Charles IX.* By Henry White. London, 1868.

2. *Les Guises, les Valois, et Philippe II.* Par M. Joseph de Croze. 2 vols. Paris, 1866.

3. *Henri de Valois et la Pologne en* 1572. Par le Marquis de Noailles. 3 vols. Paris, 1867.

4. *Guerres de Religion.* Par J. Michelet. Paris, 1856.

5. *Histoire de France.* Par Leopold Ranke. 3 vols. Paris, 1858.

tial, useful, and interesting product of much original research, written in a good style and with equitable judgment. The two volumes by M. de Croze contain, besides a brief, impartial, and clear narrative, a number of letters of the princes of the House of Lorraine, collected from various sources and now published from the original documents for the first time; while the work of M. de Noailles comprises likewise a mass of newly-published correspondence and State papers, and a complete account of the election of Henri III. to the crown of Poland and of the connexion which that transaction had with the history of France and of Europe.

The character of every nation in Europe underwent a great change during this sixteenth century, which will ever be regarded as one of the greatest crises in the world's history. The faith and moral constitution of every nationality was then tried in the fiery furnace of new opinions, and for nearly the whole of its duration the spiritual destinies of mankind were subject to the dreadful and incessant arbitrament of sword and fire. It was an age of martyr-spirits and ferocious passions, of evangelical aspiration, of crime and violence of the most fearful atrocity, and of Machiavellian conspiracies against the rights of conscience, concerted with diabolical ingenuity, and wrought out on a scale of appalling magnitude. France, as well from her peculiar position as from the character of her government and its alliances, offered a battle-ground for the rival creeds on which the partisans of the Papacy, aided by Italian and Spanish intrigue, gold, and auxiliaries, attempted by every appliance of art, perfidy, violence, and cruelty to annihilate Protestantism within the whole limits of the country. The history of this contest is crowded with tragic and pathetic incidents, with barbarous executions, with cruel massacres and persecutions under every form, with battles, sieges, and combats, with anarchy and sedition, and with intervals of peace hardly less cruel than the periods of war which they superseded. In no part of Europe was the great contest between Protestantism and Catholicism carried on with greater gallantry and perseverance on the side of the Protestants; and though Protestantism on the whole must be said to have failed in France, yet the history of the great struggle will ever remain among the most interesting of the records of humanity; while by its study the subsequent destinies of the French nation are in a large measure explained and accounted for.

Up to the time of the accession of Francis II. (A.D. 1559) the Protestants had for forty years resigned themselves to be tortured and burnt. Calvin, whose spiritual authority was absolute over the whole of the Reformed party in France, had declared, in harmony with his belief in Predestination, that resistance to the civil power was not justified by the tenets of the Gospel. With the Renaissance, however, and the study of antiquity, republican doctrines, as evidenced by that burning, withering denunciation of tyranny, the *Contr' Un* of La Boëtie, began to prevail among men of culture; the frightful sufferings of the Reformers exasperated the minds of all with any pretence to human feeling; the high spirits of the daring and impetuous Protestant *noblesse* assumed the lead of the new movement; the policy of saintly acquiescence under the cruel aggressions of tyranny and bigotry began to be questioned, and men dared to look to the sword as the most righteous defence of the Gospel—to be drawn in defence of the insulted majesty of God; *Venger Dieu* became henceforward a Huguenot watchword. Moreover, the accession of Francis II., a boy of not sixteen years of age, concurred to release the Reformers from the doctrine of servile and passive obedience to civil authority, for it was not the *boy king* who was really governing the country, and responsible for the acts of cruelty and persecution which distinguished his reign, but the ruthless and persecuting Guises, the uncles of his wife Mary Stuart, who exercised real sovereignty in his name.

The Guises were a younger branch of the house of Lorraine, which claimed to be descended from Charlemagne; they had, although strangers in France, usurped a place equal to and sometimes above the princes of the blood, and became more insidious and hard ly less dangerous rivals of the monarchy than the Dukes of Burgundy in the

previous century. Francis, the second Duke of Guise, had added Metz and Calais to France; and the vigor of his character, and occasional magnanimity in success by which he mitigated his ordinary ferocity and intolerance, rendered him the most redoubtable chief of the Catholic party. His brother, the Cardinal of Lorraine, was witty, eloquent, learned, and politic, but vindictive, violent, and covetous, and said to be wanting in courage, unlike the rest of the Princes of the house of Guise, who, subtle in intrigue, daring in action, and suspicious of friend and foe, united such pride and dignity of bearing with such dexterity, pliancy, and elegance of demeanor, that it was said, "*les autres princes paraissaient peuples auprès d'eux.*"

The chief rivals of the Guises were the Princes of the House of Bourbon—the vacillating and weak-minded but brave Antoine de Bourbon, King of Navarre, and his brother Louis, the brilliant, gallant, and chivalrous Prince of Condé; next to them came the powerful family of the Montmorencies, at whose head was *Le Grand Connétable* Anne de Montmorency. But all these, and the Châtillons, a great family of Burgundy, represented by Coligny and his brother d'Andelot, nephews of Anne de Montmorency, were denied all approach to the King's person, and the discontent thus excited exasperated the feelings of indignation caused by the cruelties perpetrated upon the Protestant party, which culmnated in the celebrated but abortive conspiracy called the *Conjuration d'Amboise*, the object of which was to deliver the young king from the tutelage of the Guises (A.D. 1560). Upon the failure of this plot, numberless sanguinary executions without trial were committed upon Protestant and other noblemen with merciless and unsparing ferocity. The Loire was covered with floating bodies, attached to poles, sometimes fifteen together. The streets of Amboise flowed with blood; the spectacle of the execution of prisoners was a daily after-dinner amusement with the Guises and the court. The young king and Mary Stuart were taught to find delight in the dying convulsions of their subjects, and here the child, who was afterwards Charles IX., first snuffed that odor of carnage with which he grew furious at the massacre of Saint Bartholomew.

The death of Francis II., one of the sickliest of the sickly brood of Catherine de Medicis, deprived the Guises of the regency, which was now assumed by the Queen-mother, after a life of subjection and obscurity, in the name of Charles IX., a boy of twelve years of age. At first Catherine, who was perfectly indifferent to all moral and religious considerations, seemed inclined to lean to the Protestants, as being the weakest and more manageable party, and published in January, 1562, the celebrated Edict granting to the Protestants permission to hold religious meetings, and abolishing all penalties enacted against them. But the Guises, urged by the rancor of disappointed ambition, now contracted that secret and treasonable alliance with Philip II., which they continued till their fall. From the dark and monstrous power presided over by the solitary bureaucrat of the Escurial, they began to derive that mysterious strength which enabled them to become ultimately the rivals of monarchy itself. They were, indeed, to make use of the term applied by his enemies to Henri de Guise, true Princes of Darkness, and the consummate address of their conduct and the duplicity of their nature renders it very difficult always to give the true interpretation of their actions. The real purport of their designs seems to be that they foresaw that in the sickly sons of Catherine de Medici, the race of the Valois would come to an end; that the throne of France might then be seized by an audacious chief who had assumed the greatest share of influence in the country, and that the most certain way of arriving at such a dangerous eminence was to put themselves forward as the champions of Catholicism. The frightful massacre of the Protestants on the 1st of March, 1562, at the little town of Vassy, in Champagne, which was superintended by the Duke Francis in person, raised a furious irritation among the Protestants and a ferocious joy among their adversaries. Rough wood-cut representations, with a narrative of the horrible transaction, passed from hand to hand, and this method of appealing to the passions and imagination of the people by engravings and pictures was used by both parties

during the whole of the wars. The gravest magistrates of the Parliament showed their horror of the frightful atrocity when Guise entered Paris after the massacre. Two of them, Harlai and Seguier, refused to occupy their seats on the day on which the man of blood appeared in the Parliament of Paris. Montmorency, however, and the *Parti Politique*, the moderate party, as they styled themselves, had joined the faction of the Guises;* and soon after the Guises, with Montmorency and Antoine de Bourbon, King of Navarre, who had deserted the cause of the Huguenots, got possession of the King's person at Fontainebleau by a *coup de main*. This audacious usurpation, coming after the massacre of Vassy, and followed by the revocation of the Edict of January, was the signal for the outbreak of the great civil and religious war. The mutual exasperation of the two sects had been increasing with frightful rapidity. The Protestants began to search their Bibles anew for texts to justify recourse to the sword. The poorer *noblesse*, full of the old traditions of feudal independence, were by no means likely to submit tamely to massacres as horrible as Vassy, and penalties which made life itself intolerable. Condé, the acknowledged chief of the Huguenots, had been for some time in the field, but he waited for Coligny, whose stern and upright spirit had long debated within itself the lawfulness of armed resistance to authority, and his doubts and hesitations on this head were terminated by the valiant counsel of his noble-spirited wife, Charlotte de Laval.

One night, as the Admiral lay sleepless in his bed, ruminating on the wretched condition of the Protestants, and still hesitating, he heard sobs from the lady at his side, who mourned over the miseries of the Church, and the defenceless state of its children. "Madame," said Coligny, "put your hand upon your bosom and examine your conscience. Is that in a condition to encounter disaster, shame, and *the reproaches of a people who judge of all things by success?* Can you support treachery, flight, nakedness, hunger, the hunger of your children, death by an executioner, and to see, perchance, your husband drawn on a hurdle? I give you three weeks to consider." But his wife replied with impetuosity, "Do not let the dead of three weeks rest on your head:" and after this scene of real life—as pathetic as any in the whole range of the tragic drama—Coligny determined likewise to commit at once the cause of his creed to the arbitrament of the sword.

War commenced on the side of the Huguenots* with a wild and brilliant exploit of the Protestant *noblesse*. The daring Condé, with two thousand young Protestant cavaliers, carried Orleans in a cavalry charge. The impetuous band rode for six leagues on a sunny afternoon, *ventre à terre*, with shouts and shrieks of laughter, as horseman or baggage rolled down in their headlong speed into the dust, and took the place by surprise. In such mad fashion began one of the most horrible civil wars in history. Village people who saw them pass said it was a wild frolic of all the mad fellows of France—*de tous les fous de la France*. The story of the massacre of Vassy had already put the Protestants in motion, but the news of that of Sens, where a hundred defenceless people perished, perpetrated also by one of the Guises, a month later, set every centre of Protestantism in France in a blaze. Every Huguenot deemed it prudent to take arms for his life and his family, and to risk all, rather than submit to be so tamely butchered. The couriers of Condé galloped with their fatal missives from Orleans to every point of the compass. With one impulse, as though at the signal of one electric current darting across the length and breadth of the land, the gleam of Huguenot steel flashed along the Loire

* One of the most dramatic incidents of the time occurred at this period. Condé, returning, as was his wont, from the Huguenot *prêche* at the head of 500 harquebusmen, met the Guises at the head of their troops in the streets of Paris. The rival chiefs saluted each other and passed on. Theodore Beza was the preacher that day. He wore a breastplate. Instead of the ringing of the bells, the shots of harquebuses called together the Huguenot congregations.

* The origin of the name "Huguenot" is, as is well known, involved in much obscurity. Some derive it from "Eidgenossen." We incline, however, to the derivation from "Hugues." The Guisards vaunted the descent of their chiefs the Guises from Charlemagne, and taunted the Protestants, who were royalists, for preferring the dynasty of "*Hugues Capet*."

from Blois to Tours and from Tours to Angers; it sprang from town to town in Normandy, and girdled the coast; the half of Languedoc sprang to arms, and the great cities of Guyenne and Gascogny declared for the white scarf of the Huguenots and the black minister's gown of Geneva. Dauphiny, with the massacre of the Vaudois still in her memory, arose. Lyons was carried away by the hot fervor of the hour, and Chalons, Maçon, and Autun, followed in her wake. The insatiable Erinnyes of religious war were thus let loose, and France was doomed for nearly half a century to be the prey of fury and rage more sanguinary and detestable than the appetite for blood of the wolf and the tiger. The Huguenots by no means escaped the contagion of the ferocious passions of the time, but, as a general rule, less implacable to men, it was on stones, on images, on monuments, on cathedrals, and on all the paraphernalia of the rites of Catholic worship, that they spent their whole fury. On the 21st of April, 1562, began that lamentable burst of fanatic fury which has done more than all the wrath of the elements or the corroding breath of time to destroy the gigantic, and yet fairy-like, monuments of the noblest aspirations of the Middle Ages. On that day the Huguenot soldiers commenced their work of demolition on the Cathedral and churches of Orleans, overthrowing the altars, defacing the tracery, breaking the emblazoned windows, and burning the richly carved wood-work. The chiefs at first endeavored to stay the work of havoc; they rushed to the cathedral. Condé seized a harquebus and aimed it at a Huguenot fanatic mounted aloft and pulling down an image. "*Monsieur,*" cried the soldier, "*ayez patience que j'abatte cette idole, vous me tuerez après.*" After many such vain efforts the leaders seemed to see that it was the will of Heaven, and ceased to attempt to restrain their men.

The demons of destruction awoke as at a trumpet-blast, and swarmed over the whole length and breadth of France. The crowbar, the hammer, and the axe were plied with unwearying fury from one end of the kingdom to the other, not in creating, but in destroying. Neither delicate tracery, nor vermeil or golden-tinted window, nor tombs or effigies of kings, or saints, or heroes, found grace in the eyes of the ravagers. The elaborate workmanship of five hundred years perished in one day. The bones of saints were torn from their reliquaries, sometimes forced by torture from the priests, and defiled and burnt, while the rabble paraded themselves in mock solemnity with the mitres of bishops and abbots on their heads, and rochets, copes, and other priestly vestments, on their shoulders, before throwing them on the blazing bonfire of the market-place.

Such a storm of sacrilege and violence evoked in the breasts of the Catholic masses a rage for blood and vengeance of the deadliest intensity. In every province the two factions waited but for the word and the occasion to spring like ferocious beasts upon each other—to kill or to be killed. After some fruitless attempts at negotiation by the Queen-mother, the Catholic chiefs determined to let loose the multitude upon the heretics by proclamation; and on the 13th of July, 1563, authorized all the inhabitants of cities and villages to take up arms, not only against the spoliators of their churches, but against those who held unlicensed prayer-meetings. War, indeed, seemed the only method of settling a question, for which neither side could imagine any peaceful solution possible. The religious unity of France, dating from the time of the first Frank king, consecrated with the reverence and prescription of centuries, seemed to every Catholic the indispensable condition of national life. Indeed, many even of the most enlightened professors of both creeds looked upon the coexistence of two different forms of Christian worship in the same country as an absolute impossibility. The Catholic regarded the very contemplation of such a state of things as impious and treasonable, while the Huguenot's conviction was that his was no new religion, but that of the primitive Church, and the only one to be tolerated in a State. If such was the state of mind among the more refined Catholics, among the people the same convictions became allied with the grossest passion, prejudice, and superstition, and were sanctified with all the most cherished memories of youth and the more sacred traditions of time.

The massacre of Saint Bartholomew stands out with such a hue of crimson

horror from the rest of the terrible history of this century, that the ten years of carnage and terror which preceded, and the twenty-five which followed, seem less inhuman by comparison. But the story of the whole time is a confused chaos of assassination and butchery, which the imagination wearies with loathing at all attempts to realize. The Catholics and Protestants, like two hostile races intermingled on the whole soil of France, carried on a merciless struggle for thirty-five years with countless vicissitudes of fortune. Every province and almost every city was won and lost, and lost and won, again and again by Catholics and Huguenots. There were six separate civil wars, followed by as many ineffectual treaties of peace. The Catholics were victorious in nearly all the pitched battles—in that of Dreux in 1563, and in those of Jarnac and Montcontour in 1569. The battle of Saint Denis, fought in 1567, was the only one in which the Huguenots gained any advantage, and in that the cavaliers of the white mantle, with vastly inferior numbers, displayed themselves so gallantly, that the envoy of the Sultan, who was present, cried, "With ten thousand such horsemen my master would conquer the world." But even in defeat, the Huguenots, under the generalship of the unconquerable Coligny, showed so terrible a front, that their adversaries were glad to let them retire unmolested, and, after each victory, a peace was concluded, containing more or less of the provisions in favor of toleration in the Edict of January, according to the fortune of the hour.

The three principal leaders of the Catholic party were Francis, Duke of Guise, the Connétable Anne de Montmorency, and the Maréchal Saint André, who formed the union known by the name of the Triumvirate, and the precursor of the League. One by one these triumvirs, and the chief princes of the blood, perished on the field or beneath the hand of the assassin. Montmorency fell beneath the pistol-shot of a Scotch soldier on the field of Saint Denis. Saint André perished at the battle of Dreux. The Duke of Guise died before Orleans, wounded by the poisoned pistol-bullets of Poltrot. Antoine de Bourbon, the King of Navarre, perished by a harquebus-shot at the storming of Rouen in 1562, leaving behind him his strong-souled Huguenot widow, Jeanne d'Albret, and her son, Henri of Navarre, a child of nine, destined to close, after thirty years of bloodshed, the sanguinary epoch of wars of which his father was among the first victims. The gallant and brilliant Condé, whose legend on his banner was "*Doux le péril pour Christ et la patrie*," was first made prisoner at Dreux, and subsequently, after having led the charge at Jarnac, assassinated on the field, where he had fallen with his horse shot under him, and given up his gauntlet. The fiery prince led his cavaliers on that occasion with a leg broken by a horse-kick, which set the bone sticking through his boot, and cried before the charge, "*Noblesse française! voici le moment tant désiré, souvenez en quel état Louis de Bourbon entre au combat pour Christ et sa patrie.*" History also signalizes at that desperate conflict the fall of an old Huguenot patriarch, who with a band of his descendants, twenty-two in number, sons and grandsons, formed an heroic rampart in front of the dying Condé, and fought till only seven survived.

The war was rendered more ferocious by the employment on both sides of mercenary German and Swiss *Reiters* and *Landsknechts*, whose habits of violence and plunder had grown in ferocity inversely with the progress of the age in polish and sentiment. Both parties appealed abroad for such assistance, and both parties hired foreign troops; but in such cases the odium rests with those who begin. Coligny declared at the outset that he would prefer to die rather than that his party, "*ceux de la religion*," should be the first to introduce foreign armies into France. The confederated Protestants, to show that they were the national party, had adopted the royal color, white, for their cloaks and their scarfs, to which the Guises and the Papists replied at once by putting on the colors of Spain, the red cloak and the red scarf, adding however a white cross to keep up some appearance of loyalty. The Papal fanatics, the Guisards and their ambitious and intriguing chiefs, were utterly insensible to all considerations of patriotism, and were prepared to make the country the vassal of Spain at the price of the extermination of the Huguenots. Philip replied to the solicitations of the Queen-mother and the Guises by

an offer of 35,000 men, but the Queen-mother was not anxious to have so many Spanish troops in the country, and his assistance was confined eventually to a lesser supply of soldiers, while he constantly renewed his subsidies of money.

The Popes likewise sent frequent supplies of money and men, and while Pius V., whose intolerance was as ferocious as that of the Innocents and Montforts of the thirteenth century, filled the Papal chair, he was unwearied in his fabrication of Bulls and encyclical letters, consigning hereties to eternal torments, and exhorting all Christian people to aid in their extermination. All Europe took part more or less in the struggle in turn, and the Protestant Princes of Germany and the Protestant cantons of Switzerland rendered the same service to their French brethren of the Reform which the Catholic States did to their own co-religionists. Indeed, the civil war in France was but an episode in the great European struggle of Spain and the Papacy to arrest the progress of Reform, and its vicissitudes were largely influenced by the fortunes of the great struggle which was going on in the Low Countries. The second great rising of the Huguenots in 1567 was a reply to the victories of the Duke of Alva and the execution of Counts Egmont and Horn. Nor were the successes of the Protestants in Scotland against Mary the niece of the Guises without due effect on the resolution of the Huguenot chiefs to appeal once again to the judgment of war.

The great centre in France of the Huguenot power was at La Rochelle. This strongly-fortified maritime city, with its population of daring seamen and enterprising merchants and shipowners, declared, on the 10th of February, 1568, for the "Cause," and thenceforward, until the famous siege by Richelieu, remained the stronghold and military base of the Huguenots. That they could here receive assistance both in arms and men from England was not one of the least of its advantages. The Rochellois dedicated their lives and money to the cause of the Reformed religion, and their shipowners, some of whom possessed as many as ten vessels, sent forth a cloud of Corsairs, to whom the English ports were always open, who ransacked every Catholic ship which came in their way, and gave tithes of their spoils towards the support of the war.

Rochelle, in the second war of religion, was named as the place of rendezvous for the Protestant chiefs. Thither Condé and Coligny had escaped after a rapid and perilous flight from a treacherous attempt at capture by Catherine de Medicis, dragging with them their wives and children. Their marvellous passage over the Loire, near the Huguenot city of Sancerre, was considered as a direct manifestation of the favor of Heaven. The whole party crossed at a place only fordable at extraordinary seasons. As they passed through the water they raised the chant of the Psalm, "*In exitu Israël*," and the river immediately afterwards rose so as to keep back their pursuers.

To La Rochelle likewise at this period came the widowed Jeanne d'Albret with her son, Henri of Navarre, to take part in the councils of the Protestant chiefs, and showed herself as daring as Condé and as firm as Coligny himself in her resolve to live and die for the Faith. After the defeat of Jarnac, Jeanne d'Albret, who, it was said, had nothing of a woman in her but the sex, joined the army with her son and the young Condé, son of the gallant chief who was murdered on the field of Dreux. The great-hearted princess harangued the discomfited Huguenot gentlemen with tears and sighs and high-souled words, and presented to the Protestant ranks the two young princes as the heirs and avengers of their beloved chief. Her young son, Henri de Navarre, with a firm voice, swore never to desert the "Cause." The soldiers adopted him as their head by proclamation, and the princess had a medal struck to celebrate the occasion with the proud inscription: *Pax certa, victoria integra, mors honesta*, and testified by word and deed, as d'Aubigné narrated, that she was prepared to sacrifice wealth, grandeur, and life itself to liberty of conscience.

During the desperate campaign which followed, Coligny put forth all his skill as a general, and showed the unconquerable resolve in retreat of a William III. or a Washington, of a soul strong in itself and superior to misfortune. The campaign was concluded by the peace of

Saint Germains, 8th of August, 1570, the most favorable of all which the Huguenot party had yet wrung from their oppressors, and the subject of furious expostulation from Philip and Pius V., whose missives, as Michelet says, may be summed up in a couple of words, *Tuez tous*. By this treaty not only were the Huguenots allowed free access of religious worship in the churches already established, but they were declared capable of holding all offices, royal, municipal, and seigneurial, and allowed to retain four strong places, of which La Rochelle was the chief, as guarantees for the observance of the treaty.

Both Protestants and Catholics saw subsequently in the favorable terms of the "Peace of Saint Germains" a treacherous show of toleration, and believed the massacre of Saint Bartholomew to have been already resolved upon when it was signed. Some, giving the Queen-mother credit for greater capacity for intrigue than she really possessed, have imagined that it was planned at the famous interview between Catherine and the Duke of Alva at Bayonne, in June, 1565. That the thought of massacre or assassination was then as always present to the mind of Catherine as the speediest way of solving every difficulty it is impossible to deny, but if the account of one of the chief conspirators, the Duc d'Anjou, afterwards Henri III., is to be believed, the great crime was resolved on in a single instant of impatient madness and vexation.

The peace of Saint Germains had left Coligny the greatest subject in the country; his integrity, inflexible justice, and incorruptible sense of duty were recognized by all the Huguenot party, and all acknowledged him as their undisputed head. Voluntary taxes were levied, of which he had free disposal for the good of the "Cause;" and it was said Coligny could raise a greater army in three days than the king in three months.

Gaspard de Coligny was of one of the most ancient and noble families in Burgundy, and had his seat at Châtillon sur Loing. He was the elder of three brothers, the other two being François de Châtillon, surnamed d'Andelot, an excellent and generous soldier, and Odet de Châtillon, a cardinal, a learned, amiable, and liberal prelate, the patron of letters in the Renaissance, to whom Rabelais dedicated the fourth book of Pantagruel, and who afterwards embraced the Reformed doctrines, and married a wife in his red cardinal's robe. Coligny had shown a great genius for military organization,* and was made colonel-general of the infantry of France. After the Spaniards defeated Anne de Montmorency under the walls of St. Quentin, he threw himself into the town, and though forced ultimately to surrender, his desperate defence saved Paris. When liberated after the peace he retired to his *château*, where he passed his days in patriarchal piety and simplicity. He had daily prayer in the morning, and prayer and sermon on fixed days, in his chapel. He corresponded with Calvin, and was a severe, reserved, high-souled man, an inflexible judge of others, and pitiless towards himself, reverencing, above all human things, his duty to God and to his country.

All the sorrow of the time had tried this noble nature: family affliction of the bitterest, partaking of all the horrors of the age, assailed him year after year. His high-minded wife died in 1568,† and both his brothers, d'Andelot and Odet, had been poisoned in the three following years. His portrait among the *Grands Amiraux* of France still strikes all observers with its calm, majestic, noble aspect. The square high forehead, the upright bearing of the head, the full yet firm mouth, the drooping moustache, contrast strongly with the narrow and bent brow, the thin compressed lips, the upturned and wiry moustache of Henri de Guise, whose glittering icy smile and feline piercing eyes, with drooping eyelids, puckering upwards at the corners, in wrinkles traced by the action of innumerable faithless smiles, evince the inscrutable insincerity of his nature; while

* He made use of a striking expression on the occasion of creating a Protestant army at La Rochelle, *Formons ce monstre*, he said, *par le ventre*,

† On her death-bed she wrote to her husband—"I entreat you by the love you bear and by the children I leave you as pledges of my love, to fight to the last extremity for God's service and the advancement of religion." Coligny married again in 1571 Jacqueline of Montbel, Countess of Entremont, at the solicitation of the lady, who had never seen him, but was captivated with his reputation, and desired to share his destinies.

the clear, melancholy grey eyes of Coligny are as deep as truth itself, sadly as they look from the past, in which he had lived face to face with terror, calamity, and crime, and grown worn and weary in long conflict with the ferocious passions of his contemporaries. He had made his chief reputation in civil warfare; he had grown great at the expense of the blood of his countrymen; and though he justified the war which he had carried on against his sovereign by the consideration that he had taken arms in defence of his religion, not against the royal authority, but against the Spanish and Italian faction who had usurped possession of the councils of the nation, yet the inadequacy of the result, and the uncertainty of the future, affected him with profound melancholy; and he frequently said he would rather be dragged a corpse through the streets of Paris than again be an instrument in bringing civil war upon his country. In such a frame of mind he received at La Rochelle an invitation from the court to join it at Blois.

His friends in the Huguenot capital earnestly dissuaded him from trusting himself among the gang of assassins which followed in the wake of the Queen-mother and Charles IX. But the Admiral's mind was made up; he was determined to sacrifice, if necessary, his life to the hope of establishing permanent harmony between Protestant and Catholic, and of raising France to the foremost position in Europe on the defeat of Spanish tyranny and intolerance.

For the occasion which now presented itself was admirably advantageous for the policy of Coligny. Philip II. had failed hitherto in suppressing the heroic revolt of the Low Countries; and the noble spirit of the Admiral had conceived the great scheme of uniting the turbulent spirits of Catholic and Huguenot and all the moderate patriots in a grand war against Spain to deliver Holland and Flanders from a barbarous and sanguinary tyranny. Already the Huguenot cavaliers and disbanded soldiers of the late war had passed across the frontier, and a great share of the most brilliant successes, which the insurgents had gained in the Low Countries, was due to the brilliant gallantry of the Calvinist volunteers of France. The idea of the marriage of Henry of Navarre with Marguerite of Valois did not originate with Coligny, having been proposed by the Montmorencies, who viewed at this time with jealousy and suspicion the preponderance which the Guises began again to assert in the King's councils, and regarded this alliance as a means of resuscitating the dignity of the house of the Bourbons, the ancient rivals of the Guises; and it was for the purpose of arranging the conditions of the marriage that Coligny was invited to the court of Blois. The successes of the Protestants in Holland, and his own and the national jealousy of Spain, had prepared the young king for the overtures of the Admiral; the best forces of his nature were inspired with life and warmth when brought into contact with the patriotic ardor of the noble, white-haired, white-bearded old veteran; he gave him his whole confidence; the Admiral became the only channel of his favor; and the history of Europe might have been changed had not the jealousy of the Queen-mother, the fanaticism and discontent of her favorite son, the Duc d'Anjou, and the unsleeping spirit of intrigue and ambition of the Guises, been roused into united opposition.

Upon Catherine de Medicis, however, rests the chief infamy of the horrible catastrophe which followed. Her jealousy of the ascending influence of Coligny, and her despair of regaining the position which, as Regent, she had long held in the country, rendered her capable of any crime which might assist her in recovering the power she had lost; and she it was who, on the night before the massacre, goaded with bitter and taunting speeches her half-maniacal son into the fit of fury during which the council of assassins wrung from him sufficient authority for their purpose. The Queen-mother, who thus bears one of the darkest reputations of all history, was a true daughter of the last Medici, and carried the perfidy and the cruelty of the petty Florentine tyrants into the race of Valois, which she sunk in a tomb of equal ignominy and horror. Her constitution bore within it the foul seeds of the vicious passions of her family; and all her sons were as diseased in constitution as in mind and morals. This monstrous creature belonged to that which

is perhaps the worst species of cruel and cynical politicians—the good-humored. Her features were gross and heavy; she had the look of a female Leo X., with large, greedy whites of eyes. She laughed loudly, ate and drank copiously, and hunted boisterously to keep down her stoutness. By the aid of her *escadron volant*, a crowd of light girls of noble family, she made her court a decoy place for the nobility, endeavoring by voluptuous lures as well as by dissimulation and cruelty to minister to her ruling passion—love of power. This love of power—*il affetto di signoreggiare*—which the Venetian ambassador, Sigismondo Cavalli, declared to be the leading motive of every action of her life, was the one object to which she was prepared to sacrifice everything—even her own children. She was incapable of remorse, and could look back on a career of crime with all the joviality of a woman-Silenus. Nurtured in the spirit of Machiavelli, who wrote the "Principe" for the use of her father, skilled in all the arts of the Borgias, with no faith in any religion, or in any sincerity or high principle—but with a superstitious belief, as gross as the fetichism of an Obi woman, in astrology, in talismans and necromantic charms of which human blood and hair were constituent elements—of invincible patience—without a single noble feeling or great interest at heart to direct her course—without passion, without pride, and without a virtue—but conjugal fidelity, which her coldness of nature had never induced her to violate,—she showed herself willing to side with Catholic or Huguenot in order to maintain her ascendency. Her third son, the Duke of Anjou, the victor of Jarnac and Montcontour, was the favorite, and in his interest she endeavored to subjugate the semi-maniacal nature of Charles IX. This fiery and furious, unhappy, red-haired, lean youth, whose name will carry with it an odor of blood to the most distant ages, was not without good qualities; he had musical and artistic taste, and composed in prose and verse; he was more truthful than any of his family, and capable of more single-hearted friendships and affections; but he had received a detestable education: he was driven wild by the intrigues and bickerings of his own family, and his frantic temperament found vent for its excitability in the most violent exercises. One of his favorite occupations was the forging of armor; he would blow the horn with fury till he was exhausted; he hunted like a madman; he delighted in slaughtering and rending animals and dabbling his hands in their blood; and he had been accustomed to scenes of human butchery in his youth. Such habits and experiences were not an unfit preparation for the part he was made to play in the Saint Bartholomew, the remorse for which, however, hastened his end, and thus proved him to possess a sensibility which was wholly wanting in his mother.

The Guises, who in the first days of Coligny's favor had fallen into disgrace, returned at the jealous suggestion of Catherine to court, and the assassination of the King's adviser was plotted between them. Henri de Guise, surnamed, like his father, the Balafré, proposed that his mother, Anne d'Este, an Italian, like Catherine, and of the blood of the Borgias, should assassinate Coligny with her own hand with a harquebus-shot.* The plan ultimately, however, decided upon was that Maurevert, "*le tueur du roi*," a bravo who had been decorated by the King for a previous assassination, should do the deed; and it was from a house of the Guises, close by St. Germain l'Auxerrois, that he wounded the Admiral in the arm and shot away one of his fingers.

The failure of this attempt to assassinate Coligny was the cause of the massacre. The young King was séized at first with a violent desire to avenge the injury of his aged friend and counsellor. He displayed every token of sympathy with the Admiral; when, however, in midnight council, he was informed by the Queen-mother herself that she and his brother and the Guises were the real culprits, by a strange, but not unaccountable, transposition of passion in so bizarre a nature, the very wrath and fury which he was unable to let loose upon the real assassins were, by the artifices of his mother, diverted to the Huguenots.

* The ladies of that period, from their habit of following the chase, were practised in the use of fire-arms. Catherine herself was, as we have said, a passionate huntswoman.

Amid the two thousand victims who perished in Paris, and the twenty thousand in the provinces, a large proportion consisted of the best blood of France.* The greater part of the brilliant *cortège* of Huguenot cavaliers—fourteen hundred in number—who had accompanied Coligny and the young King of Navarre to the capital, fell beneath the hands of the assassins. The *suite* of the King of Navarre were roused from their beds by the royal archers, and driven unarmed down the staircase of the Louvre into the court, and there knocked down like cattle by the huge *hallebardes* of the German and Swiss guards of the King, who could understand no word of French.

From early dawn to the close of day the capital was full of shouting, the detonations of harquebuses, shrieks and cries of men and women thrown from windows, sounds of doors being broken open with axes, stones, and logs of wood, and of a rabble of men and boys with groans, hisses, and execrations, dragging corpses along the street. One man boasted that he had killed four hundred heretics with his own hand. Neither children nor infants were spared; and the lives of babes were crushed out as men crush out the young of serpents and wolves. A workman carried the infant Huguenots he had picked up in a deserted house like kittens in a hod on his shoulder, and pitched them into the Seine from the Pont-Neuf amid the laughter of the people.

After Henri de Guise had set his heel on the face of Coligny, and after the headless, naked trunk of the old patriot and hero had been dragged by a rabble of children through the streets, and insultingly exposed at Montfaucon, the Parliament proceeded to try him, and his papers were collected and examined. Among them was a Memoir on the Low Countries, to the effect that if France did not, England would, undertake their protection. Catherine, in order to excite Walsingham's national feelings against the memory of the murdered Admiral, showed him this document, saying, "*Le voilà, votre ami! voyez s'il aimait l'Angleterre!*" "*Madame, il a aimè la France.*"

This massacre, which took place on the feast of St. Bartholomew, August 24, 1572, proved not only to be a hideous crime but an irremediable political blunder. The moderate Catholics, the *Parti Politique*, of which the Montmorencies were at the head, withdrew from all communion with the authors of the massacre and the fanatics; while the Huguenots, on recovering from their stupor, formed a stricter confederation than ever, animated with a tenfold greater vigilance and mistrust. The Princes and great nobles of the "Cause" had been butchered forced into abjuration, or exiled; the smaller *noblesse* was disorganized by the loss of its chiefs, but the inhabitants of the towns, and especially of the great Protestant cities of La Rochelle and Sancerre, arose in desperation, and upraised the banners which had fallen from the hands of their chiefs, and made so undaunted a stand that the whole Huguenot party once more took heart. The original scruples of citizens about the right of insurrection had been allayed by the consideration that they were led by princes of the blood royal, but since the 24th of August they recognized the right of insurrection on their own account. The sieges of La Rochelle and Sancerre signalized in a wonderful manner the new spirit of the Huguenots. The whole populations of both towns, men, women, and children, fought with the energy of a single mind and a single heart. Twenty-five thousand of the besieging Catholics fell before the walls of La Rochelle. At that city and at Sancerre the women stood massed together on the ramparts pouring down boiling pitch, hot iron and stones, and combustibles of all kinds, on their assailants. At La Rochelle they invented a huge machine, called derisively the *encensoir*, a mast turning on a pivot, to one extremity of which was attached a huge caldron full of blazing liquid, which swung torrents of fire over the besiegers in the moat; and women and children marched at low tide under the fire of the batteries to

* Mr. White ("The Massacre of St. Bartholomew," p. 470) places the number of those massacred in Paris at 6,000, but admits that no certainty can be attained in such estimation. He gives a list of the numbers as represented by all the authorities, varying from one to ten thousand. Kirkaldy, of Grange, estimated the victims as amounting to 2,000. Similar uncertainty exists as to the number massacred all over France. De Thou places it at 20,000; Davela at 40,000; Sully at 70,000; Pèrefixe at 100,000.

burn the ships with which it was attempted to block up the port. At Sancerre the population was determined to die of hunger to the last man rather than surrender, and for months they held out on such impure and loathsome sustenance as cities betake themselves to in the last extremity of famine. Catherine and her son found themselves obliged to treat with Rochelle, and to sign an Edict of Toleration, the famous Edict of July: the hopes which the Queen-mother entertained of the election of the Duke of Anjou to the crown of Poland induced her to spare Sancerre at the last extremity. Encouraged by these examples the Huguenots of Languedoc and Guyenne assembled on the very anniversary of the Saint Bartholomew, at Montauban and Nismes. With one voice they rejected the stipulations of the Edict of July as insufficient, and promulgated such entirely new and daring demands, that Catherine, struck with amazement, exclaimed—"If Condé were still living, if he were in the heart of France, if he were in Paris with 50,000 foot and 20,000 horse, he would not ask the half of that which these have the insolence to claim."

To attempt to give a picture of the state of France for the next few years would be to attempt to portray chaos. In the government all moral order was subverted, all perception of right utterly wanting. No great ambition supplied the absence of principle, and irresolution and anarchy prevailed in its councils. In the royal family itself jealousy, mutual loathing, distrust and detestation, separated son from mother, and set brother against brother. Catherine had an infatuated preference for Henry III., but her other children were objects of indifference or aversion. Henri IV., in speaking of his life at Court at that time, said everybody was ready to cut anybody's throat at any moment. Intrigue and treachery, and plots of the most subversive character, were discovered among the courtiers. The governors of the provinces, now that royalty was contemptible, revived the old notions of feudal independence which Louis XI. had suppressed, and bid defiance to the King's edicts; and cruelty, disorganization, misery, and ruin were fast reducing the country to a condition of Oriental barbarism and desolation. The ferocious habits of life of the most lawless periods of the dark ages were reintroduced; no man had confidence in his neighbor, and Damville Montmorency, who succeeded, on the death of the Constable, to the leadership of the political party, slept with his chamber door guarded by a tame wolf, and by a gigantic swordsman who could cut animals asunder with one blow of his weapon.

When Henri III. traversed France, after his flight from Poland with the crown jewels, on his way to take possession of the sceptre of his country, he found the monarchy already in the lowest state of abasement, and he contrived to make it still more despicable. To find a parallel for any so monstrous a compound of dissimilar vices as characterized this monarch we must go back to the most depraved epoch of the Roman Empire. His character was both Asiatic and Italian. The victories of Jarnac and Montcontour, gained under the mentorship of the Maréchal de Tavannes, who roused him with taunts from his bed in the morning and forced him for a while to be a soldier, only raised expectations which made his subsequent career appear more contemptible. He wore a female garb, painted his face, curled his hair, exposed his breast, wore ear-rings and bracelets, carried little dogs in his arms, travelled with a collection of asses and parrots, used a fan, scented his person, wore amber necklaces, ate red partridges with gilded beaks and claws, and omelettes powdered with pearls. D'Aubigné, with his usual energy, stigmatizes—

"Cet habit monstrueux pareil à son amour,
Si qu'au premier abord chacun était en peine
S'il voyait un roi-femme ou bien un homme-reine."

This man-queen, or king-woman, gave up riding though a good horseman, abandoned even walking, and journeyed in a litter, or by boat. The silly extravagances which he committed for his curled, handsome, ferocious, duelling *mignons*, who cut each other to pieces for the smiles of their master, gave rise to the worst suspicions. He studied Machiavelli nightly, and his conceit of his political genius thus developed was astounding. He imagined himself to be the equal at least of Louis XI. or Cæsar Borgia. Good faith in a monarch

he regarded as simplicity. A true son of his mother, he esteemed dissimulation, perjury, and murder as virtues, when used in the interest of the State.

To a cruel and infamous morality he added superstition of the grossest character, walking barefoot in procession in the costume of the *Flagellants*, and getting himself flogged, by way of penance, occasionally, with silken cords. His constitution was utterly exhausted long before he was thirty, his cheeks grew hollow, his lips white, his features pinched and cadaverous with debauchery. The court of this effeminate monstrosity was a foul haunt of the most shameful libertine practices, and the scandal of it was hateful to every party in the State but those who profited by his vices and his follies. Soon after his return to France his mad-headed, unprincipled brother d'Alençon broke out into revolt and joined the confederated Huguenots, whose strength was recently increased by the body of German and Swiss auxiliaries under Jean Casimir, the Prince Palatine; and Henri III., in 1576, was obliged to grant the Confederates the favorable peace called after the Duc d'Alençon, who was thereby created Duc d'Anjou, *La Paix de Monsieur*, by which the king disavowed all complicity in the "*désordres et exces*" wrought at Paris and other cities on the 24th and following days of August—the Saint Bartholomew!

At the news of the favorable terms of this treaty the Catholic masses exploded in the most violent indignation. After thirteen years of almost incessant civil war, heresy lifted its head with more effrontery than ever. The republican doctrines of Hotman—whose *Franco-Gallia* was the *Contrat Social* of the sixteenth century—backed by the insidious teachings of the Jesuits, began to be agitated even among the zealots, and the idea of a great Catholic League to protect the faith and for the extermination of heretics, even in despite of the king, was started and realized—a Holy Union was formed, to which each member swore unreserved obedience, *without exception of persons*, and though it was ineffectual to prevent the conclusion of the Peace of Bergerac, in 1577, in confirmation of the Peace of Monsieur, which subsequent movements had violated, yet the conception was revived not long after, and carried out on such a gigantic scale, and put into action with such violence and blind fanaticism, as threatened to annihilate not only the royalty but the national existence of France.

During the next seven years of internal anarchy and disorder, of court folly and prodigality, and of hopelessly ruined finances, the deadly hostilities of creed were at rest for a while, but brigands installed themselves in fortresses and held neighborhoods in terror, and governors of provinces were in open warfare. So light a matter had war become to be esteemed that the scandalous taunts of the king against his sister, the Queen of Navarre, brought about the foolish *Guerre des Amoureux*, in which the ladies of the Court of Nérac persuaded their lovers to revolt, and in which for the first time the brilliant military qualities of Henri of Navarre were exhibited, in his defence and deliverance of Cahors from an attack of superior numbers of the king's troops.

Not long after the termination of this war by the Peace of Fleix, the King of Navarre, in the midst of his court at Nérac, and of his adorations of pretty women, was roused from a gay and aimless state of existence by an earnest, eloquent letter from the pure-hearted, high-minded Huguenot, Duplessis-Mornay, who informed him that the Duc d'Anjou was in a state of illness past recovery. The Duke died on the 10th of June, 1584, and Henri de Navarre became heir to the throne; for though Henri III. was but thirty-three years of age, such were his habits of life, and such the ruined state of his constitution, that no hopes were entertained of any further continuance of the line of Valois.

But with this near prospect of the accession of a heretic king, the League, which had been a failure in 1576, started up into fresh life, and the apprehension of so radical a change in the government gained adherents to the faction in quarters from which it had before been rejected. And it must be allowed, from a Catholic point of view, the question was one of a very grave aspect. In a few months a new reign might commence, and a Calvinist might wear the crown of Saint Louis. A heretic king might be King of France, whose first

oath at his coronation was to defend the same holy Catholic Apostolic Roman religion which had been professed by all the sovereigns of France from the days of Clovis, and which was declared by the States-General of 1576 to be a fundamental part of the constitution of the country.

After twenty years of civil war, massacre, and reciprocal outrage, the great dispute was to end thus! The prince by whom so great a change might be effected was a descendant of a branch which a lapse of more than three centuries had separated from the royalty, and who, if the royalty had been a civil right, would have been excluded as not being within the degrees of succession. These were arguments which caused serious reflection to the most moderate Catholic. The zealots pointed to the examples of Henry VIII. and Elizabeth, and cited with every exaggeration the sanguinary statutes of the English Queen against the Papists, as examples of what the Catholics might expect under a Protestant monarch. The Duke of Guise, in defiance of the King's prohibition, even exposed on the walls of Saint Severin pictures of every description of martyrdom, which were supposed to represent the tortures of the Catholics in England.* "Such," it was said, "would be the fate of France under the rule of the ally of the English Jezebel."

The ostensible object of the League was to prevent the succession of Henri, but the chief authors had other views. They were men of factious and violent spirit, and consisted of two elements—the *bourgeoisie* of Paris and the party of the Guises. The first were governed by the council of the *Seize*, representing the sixteen quarters of Paris, and the latter by the Guises, who were the paid agents of Philip II., and, through the Spanish gold which they distributed, swayed the councils of the League. The Guises had long been in the pay of Philip, and on the 16th of July, 1585, at their château of Joinville, the Duke of Guise and the Duke of Mayenne, on behalf of themselves and other members of their family, entered into the famous pact with the Spanish ambassadors, Tassis and Moreo, by which they bound themselves, in return for half a million of crowns to be paid by Philip II., and for subsequent subsidies, to form a perpetual union for the extirpation of heresy both in France and the Low Countries; for securing the crown of France not only from heretics, but from all who protected heresy; to which were added other stipulations, which if carried out would have placed France in pure vassalage to Spain.

For the toils with which the inveterate schemer of the Escuriale ndeavored to envelop all Christian society were now spread over the whole of Europe, and the entire soil of France was undermined with Spanish and Jesuitical intrigue. The solitary phantom who in his dark cabinet dreamed of nothing else but the extermination of heresy and his own universal dominion, had reached the most critical period of his whole life. He had been for fifteen years endeavoring to put down heresy in Holland and the Low Countries; he had stamped out countless lives, and reduced the most fertile and industrious provinces in the world to a desert, where wolves and bears roamed over the abandoned fields, and devoured the sentinels at the gates of once populous cities.

But even now, when a fresh era of bloodshed, a new epoch of desolation, was beginning for France, another opportunity occurred which an able monarch might have seized for the salvation of France and of Europe. On the 10th of July, 1584, the Prince of Orange, the liberator, was shot by Balthasar Gerard, and the United Provinces of the north, undeterred by the shameful conduct of the Duke of Anjou during his brief sovereignty, offered themselves as subjects to the French king.

To accept this offer, and take up the gauntlet against the merciless and ambitious zealot, the pedantic despot of the Inquisition, whose ruthless bigotry consumed daily hecatombs and holocausts of human victims, was a task which Henri III. had neither the will nor the capacity to undertake; but the possibility of his acceptance induced Philip and his ambassadors to urge forward the partisans of the League with tenfold activity. After publishing their celebrated Manifesto, the great uprising of the members of the

* Such pictures, exhibiting fictitious martyrdoms of English monks and priests, are still to be seen in Spanish convents.

Catholic League took place all over France, and was a sort of parody of the great rising of the Huguenots in 1562. The King of Navarre published a counter manifesto, and the Huguenots began to rise also. But Henri III. had more dread even of the Huguenots than the Leaguers; his troops were not ready for the field, while the forces of the League had been long held in readiness for the outbreak. The King, after wavering as usual between one extreme measure and another, resolved to give himself wholly up to the League, and the Treaty of Nemours was signed on the 7th of July, 1585, which recalled all former edicts of toleration, stipulated for the banishment or extermination of every heretic, and delivered up a score of strong places into the hands of the Guises and their followers.

When the King of Navarre received the fatal news of this treaty of Henri III. with the League, he leant his head forward upon his hands; as he raised his face again, the half of his moustache was white. But the Béarnais possessed one of those elastic natures which never saddened in adversity nor broke beneath disaster; it was like one of those admirable Indian blades, which time cannot warp nor violence render less piercing, but which spring to their full length after each trial of their temper. He summoned the whole force of his nature to prepare for the storm. With the aid of Duplessis-Mornay, he wrote eloquent letters to Elizabeth and to the principal peers of the House of Lords, denouncing the violence of his adversaries, exposing the wiles of Spanish intrigue, insisting on the common interest which every Protestant power in Europe should feel in preventing the destruction of the Huguenots, and praying for assistance in arms, and ships, and men. Other dispatches were sent to Germany, to Switzerland, to Scotland, to Denmark, and to Sweden. At the same time a very powerful ally, the Maréchal Duc de Montmorency, Damville Montmorency, styled "*Le Roi du Languedoc*," rejected the advances of the Guises and embraced the cause of the Reform, which he had deserted in 1577, and to which he remained henceforward constant. On the 10th of August, 1585, a declaration, drawn up by Duplessis-Mornay, in the name of the King of Navarre, of the Prince de Condé, of the Duc de Montmorency, and of the Huguenot noblemen and gentlemen, and towns united in a Protestant association, was published, in which, after denouncing the intrigues of the Guises, *guerre à l'outrance* was proclaimed against the chiefs of the League and their abettors.

Henri of Navarre was not destined to lay down the sword for the next eight years of his life, nor to know any repose from open warfare till he rode as king, in helmet and cuirass, through the streets of Paris.

At the same time matters abroad looked darker than ever; in the Low Countries, which for fifteen years had been fighting perhaps the most heroic contest in all history, town after town had fallen into the hands of the Prince of Parma, and with the capitulation of Antwerp, after a siege the grandeur of whose military operations on both sides and the desperation of whose resistance have never been surpassed, the undisputed reign of the Inquisition seemed about to set in for Europe.

The immense preparations which were being made for the Armada were no secret; and to complete the dark picture, Maximilian, the tolerant Emperor of Germany, was no more, while Sixtus V., who united the implacable ambition of Hildebrand with the fiery spirit of Julius II., filled the Papal chair. Soon afterwards the new Pope, with all the arrogance of a Boniface VIII., launched against the King of Navarre a sentence of excommunication and deposition, to which Henri replied by having a famous placard exposed on the statues of Pasquin and Marforio. Sixtus V., who from the condition of a peasant had mounted to the Papal chair—who had some true grandeur of soul—who allowed words of admiration to escape him for Elizabeth and for Drake which he never gave to Philip II.—who despised and detested in reality the factious spirit of the League—after his first movement of anger, could not do otherwise than admire the courageous attitude of the Huguenot chief and the devotedness of his followers who had carried out this bold protestation.

Henri III., thus drawn into the war against his will, and occupied with the jealous rivalry of his two viziers, Epernon and Joyeuse, deemed it his policy to let

the Guises, the Leaguers, and the Huguenots exhaust their strength in the conflict to the profit of the royalty, and made his preparations with slowness and ill-will, calling for supplies from the clergy and the parliament which they were unwilling to grant. This gave the Huguenots time to collect their strength, and for the chiefs of the party to concert their measures.

But the affairs of France were but a chapter in the general history of the Protestant cause. Philip, styled in the north *le Démon du Midi*, with the Dukes of Parma and Guise for his lieutenants, was in the midst of the greatest embroilment of the grand design of his whole life. While the great battle of intolerance and liberty was being fought out in Flanders, the policy of the Spanish king was to place both England and France in a state in which they would be incapable of assisting his revolted subjects. He could not forget that in the days of Charles IX. a French intervention in the affairs of the Low Countries had been resolved upon, and hostilities between France and Spain all but broken out. The result of fifteen years of pitiless warfare with axe, and fire, and sword against heresy might be destroyed by a French monarch in a single campaign. The sovereignty of both countries had already been offered to Henri III., but declined. Elizabeth, after a similar offer, had accepted the Protectorate. The plots and intrigues of the Jesuit seminary at Rheims, the machinations of Philip, were all now directed to the destruction of Elizabeth and the subjugation of England. Of every such plot, the deliverance of Mary Queen of Scots and the establishment of the Catholic martyr of Fotheringay on the throne of England were subsidiary projects. All the Reformers in Europe considered that the safety of the whole Protestant cause depended on the safety of Elizabeth, and that Elizabeth's preservation was incompatible with that of Mary. Plot after plot for the assassination of the English Queen was discovered by the watchfulness of the Argus-eyed Walsingham; and the incessant machinations of Philip and the Jesuits at last roused Elizabeth up to the pitch of cruel resolve. She determined on one of the most revolutionary acts of modern Europe, and threw on the scaffold, as gage of battle to Philip and his Jesuits, the head of a queen. The Catholics throughout Europe shrieked for vengeance; but nowhere were the cries so furious against "the she-wolf of England" as in Paris, where news of the murder of the darling of the Guises threw the populace into the wildest pitch of frenzy; and they vented their execrations on Henri III. himself, whom they charged with having counselled the execution of his own sister-in-law.

The revolutionary fury of the League redoubled in activity, and a conspiracy was formed for the imprisonment of the King and the usurpation of the Government. Priests refused to grant confession but to those enrolled as members of the League. The Council of Sixteen organized a federative union, with Paris for its head, among the great municipalities of France, for the conservation of the Catholic faith, for the exclusion from the monarchy of the King of Navarre, for the acceptance of the Council of Trent, and for the preservation of the church and nobility in their ancient privileges.

The campaign of 1587, the year of the death of Mary Queen of Scots, was the most active of any which had yet taken place. Guise had been the prey of intense anxiety. He knew that all the Protestant princes of Europe, with the King of Denmark at their head, were getting together a German army to come to the succor of the Huguenots, and he was afraid of being crushed between the Huguenots and their German allies. Henri III. was brooding on a great Machiavellian scheme for involving Leaguers and Huguenots in a common destruction. The plan of the student of the "Principe" was, that Guise should bear the shock of the German invaders in Lorraine; that Joyeuse, with an army, should simply hold the King of Navarre in check in the south; while he, with another, should remain on the Loire, and be master of the situation. But Joyeuse, the young spendthrift favorite of the King, was jealous of some successes of his rival, Epernon: he intrigued with the League; and he wrung from an unwilling monarch permission to fight a battle with the King of Navarre. All the prodigal and riot-

ous young nobles about the court attached themselves to his standard; and Joyeuse departed to the south, saying that he would bring back the heads of the Princes of Navarre and Condé.

The battle of Coutras exhibited the military genius of Henri of Navarre in all its lustre to the world. When the hostile forces were about to engage, the dissolute and wild young Catholic nobles were overjoyed and confident of victory, and all had sworn to give no quarter. Both armies possessed about 5,000 infantry; the Catholic cavalry, however, doubled that of the Huguenots, and amounted to 2,500 cavaliers. But the King of Navarre, by the judicious disposition of his infantry and his chivalrous courage, more than supplied the deficiency of numbers. The Huguenot ministers sang the 24th verse of the 118th Psalm, while the Protestant cavaliers descended from their horses and knelt upon their knees. "*Par la mort! ils tremblent, les poltrons, ils se confessent!*" cried the wild cavaliers of Joyeuse. "*Vous vous trompez*," said an old campaigner, "*quand les Huguenots font cette mine, ils sont résolus de vaincre ou mourir.*" In an instant the whole of the Huguenot cavalry was again on horseback. "*Cousins*," cried the King of Navarre to Condé and Soissons, "*je ne vous dis autre chose, sinon que vous êtes du sang de Bourbon et, vive Dieu! je vous montrerai que je suis votre aîné!*" "*Et nous*," replied Condé, "*nous montrerons que vous avez de bons cadets!*"

Henri of Navarre showed on that day all the brilliant valor which distinguished the "*roi des braves*" all his life. "*Ne m'effacez pas, je veux paraître*," he cried to some who would cover him with their persons; at the same time his disposition of the harquebus men in companies between the squadrons of his horse contributed in no small measure to the victory. The *fusillade* of this infantry before the Huguenot charge threw Joyeuse's cavaliers into such disorder, that when the buff and-steel Huguenot gentlemen made desperate onset with sword and pistol, the plumed and gilded and caparisoned gallants went down before them, in spite of their long lances, like puppets of glass and straw. The poor *gentilhommerie* of the south crushed through and over the light-brained courtiers and sent them flying before them. The first charge was sounded at nine; by ten o'clock there was not a man of the Catholic army who was not in flight or knocked over on the field. Joyeuse was killed; while the Huguenots lost but forty men.

The conduct of Henri after this brilliant victory has always been the subject of severe criticism. Instead of marching northwards to effect a junction with the German army in Lorraine, he disbanded his forces and returned to court life at Nérac, where he laid his captured standards, twenty-two in number, at the feet of the fair Corisande, the Comtesse de Grammont. The only reasonable explanation appears to be that he was unwilling to run a risk of coming into personal conflict with the King, who was stationed on the Loire. But the German armament was thus left to itself and unsupported except by François de Châtillon, the son of Coligny, who reached it with a corps of fifteen hundred Huguenots of Languedoc and Dauphiny. Without any fixed plan of campaign, this large force rolled about the country like a drunken man; they got down as far as the Loire, when the King contrived to detach the Swiss from the troops and to turn the rest of the body again northwards, where they were met by Guise, who surprised them twice at a great disadvantage and cut large bodies of them to pieces; the rest were scattered about the country in great disorder. The roads and fields were covered with wounded and dying men, abandoned artillery, abandoned arms, and broken wagons, while the peasants practised the most merciless butchery on the foreign Protestants. One woman, it was said, cut with the same knife the throats of eighteen exhausted men who were resting in a barn.

The glory of the defeat of the German heretics was given wholly to Guise; he was the Gideon of France, and the Leaguers sang in the streets, "Saul has slain his thousands and David his ten thousands." He now requested the government of Normandy, esteemed the first in France, and possessing ports much coveted by Philip for the use of the *Armada*. But the King granted it to his remaining favorite, Epernon, in mockery of which appointment *brochures* were

hawked about the streets by the partisans of the Guises, crying out, "*Grands faits d'armes du Duc d'Epernon contre les hérétiques*," and on every page was written the word "*rien*."

The conduct of the feeble-minded monarch was inconsequent in the most absurd degree. Epernon was an able man, and his counsel was always for vigorous measures. But the King, while he irritated the Guisards to fury by the favors which he heaped on his favorite, wholly neglected to follow his counsel. A deadly hatred existed between Epernon and the Queen-mother, who, finding her influence with the King endangered by that of Epernon, reckless of all loss but that of the objects of her ambition, gave all her confidence to the Guises, whose party now had reached the extreme of insolence and temerity, in manifestation of which their sister, who was called the Queen and was in the pay of the League, the turbulent and intriguing Duchess of Montpensier, surpassed all. She hounded on the wild preachers of the League to attack the royal authority with violent anathemas, and she boasted that she carried in the scissors at her girdle another crown for the King besides those of Poland and France, the crown of the tonsure; for the talk among the chiefs of the League was of shaving the head of Henri de Valois, and shutting him up for life in a cloister, like one of the last of the Merovingian kings.

In the month of January, 1588, the rupture between the King and the League assumed still graver importance. Philip was about to aim his deadliest blow at the last asylum of political and religious liberty. The Spanish Armada, with its army of monks, with the racks and thumbscrews of the Inquisition, was waiting to be launched forth on its secret mission of vengeance and destruction. In Paris the Spanish agents, the priests, and the Leaguers went about rousing the populace to the highest pitch of terror, fanaticism, and revolt, by reports of the perfidious dealings of the king, and fictions about invading armies of heretics who should exact vengeance for the Eve of St. Bartholomew. As the Jesuits, monks, and priests yelled out their denunciations of approaching terror and famine, people grew day by day wilder with excitement. The king, terrified at the increase of the ungovernable spirit of revolutionary fanaticism in the capital, and dreading the approach of Guise, sent to warn him not to come; but the Sixteen, on their side, requested his presence in such summary fashion that Guise obeyed, and he entered Paris on the 9th of May.

The Catholic zealots, the immense host of monks and friars of every color and denomination which then swarmed in the capital, all their dependent tribes of beggars, and the whole populace, were in such a state of exasperation and revolt, that the presence of Guise was sufficient to bring matters to a crisis. The leaders of the League counted on the strange charm which the presence of Guise exercised on all around him. The Duke possessed for everybody, even for his enemies, an unaccountable power of fascination; he was of noble presence, with fair hair, piercing eyes, a ready smile, and graced with captivating manners of a pliability suitable to either noble or artisan. He never forgot a face, and no one came into his presence without some special salutation.

All history may be searched for a parallel to the magical effect which his arrival produced among the people of Paris. France, said a writer in the next century, had gone madly in love with the Duke of Guise. He arrived by the Porte St. Denis almost alone; only five or six cavaliers were with him. He proceeded down the Rue St. Denis on horseback, with his hat slouched over his eyes, and his face muffled in his cloak. As he got into the thick of the crowd, a young cavalier of his suite got close to him, and in a playful way took off Guise's hat, pulled down his cloak, and said, "Monseigneur, show yourself." The cry immediately arose, "Long live Guise, the pillar of the Church!" The news flashed through Paris. Parisians who had been panic-stricken numberless times every day with imaginary fears of invasion and massacre felt themselves secure. A masked lady pulled off her mask, and smiled, "*Bon Prince, te voilà, nous sommes sauvés!*" Vivats were thundered out; crowds gathered and gathered and surrounded him; they kissed his hands, they kissed his boots; ladies rained down flowers and green branches on him as he passed along, and

some even pressed near him to rub their rosaries on his garments, as though he were a saint. He went straight to the Queen-mother at the Hôtel de Soissons, who turned pale, and trembled, and stammered as he entered. After a brief interview she ordered her sedan chair, and both went to the Louvre to visit the king.

The temerity of Guise on this occasion in thus trusting himself alone in such a den of assassins as the court of the Valois is inconceivable. Flushed with his popular triumph, he fancied that the King had grown such a poltroon that he dared not use violence towards him with Paris in such a state of uproar. Henri, when he heard of his arrival, cried at first, "*Il est venu par la mort-Dieu, il en mourra!*" and while Catherine and Guise were on their way to the palace, the King discussed his assassination with his attendants. He covered his face with his hand, and leant his elbow on the table. A Corsican colonel was for despatching the Duke at once. An abbé who was present exhorted him benignly—"*Smite the shepherd and the sheep will be scattered,*" but Villequier the Chancellor, Cheverni, and others, who kept up a treacherous understanding with Guise, besought him not to attempt so perilous a measure, and they pointed to the sea of surging faces around the Louvre, and reminded him of the smallness of his guard. As Henri hesitated, the Duke, still walking by the side of the chair of the Queen-mother, had left behind the acclaiming and adoring multitude, and was passing between the files of the King's guard, with drawn swords, who made no response to his salutations. Crillon, their chief, pulled his hat over his eyes. The reception was ominous, and the change from the raving multitudes to the silence of these grim and stern faces appalling. Pale and breathless he passed up the stairs, and through the ante-chamber, with not a smile to cheer the sullen gloom he encountered on all sides. He came into the King's presence, who bit his lips and said, "Why have you come?" Guise stammered out hypocritical professions of loyalty, and said he came to face his enemies and slanderers. "Enough," the King said, and turned his back on the Duke, who sank down with emotion on a seat. The ladies of the palace, however, and the Queen-mother, who had herself become infatuated with Guise, took the King to a window, showed him how the people had burst into the court of the Louvre, and were agitated into the wildest frenzy. While they were talking, Guise spoke with the Queen, who was of his own family of Lorraine, and feeling the chances of life were in his favor, took leave and slipt away, wondering, doubtless, as he passed out, if he were really alive. His own hardihood and the King's want of courage seemed as inexplicable to himself then as it did to nearly all who heard this story. "What madness and folly!" said Sixtus V., when he heard of Guise's visit to the Louvre; but, when he heard the King had let him escape, he cried, with indignation, "The cowardly prince!"

Guise, however, was resolved not to be caught a second time; he called his gentlemen about him, he put the *Hôtel de Guise* (now the *Hôtel des Archives*), in the *Marais*, in a state of defence. The King remained almost besieged in the Louvre, keeping up communication, however, with the town council who remained loyalists, while the insurrectionary council, that of the *Seize*, were on the side of the Guises. The "Day of the Barricades" followed. The King was obliged to quit the city. He retired to Chartres, and after much negotiation capitulated with his revolted subjects, and by an edict, which he signed with tears in his eyes, he not only gave his sanction to the League, and adopted it as a national institution, but approved of all the acts of the Leaguers, bound himself to exterminate the heretics, invited his people to take oath never to obey a heretic prince, and consented to dismiss Epernon and his favorites. It was further provided that henceforward no one should obtain state employment without showing a certificate of being free of heresy from his bishop or curé. Henri further bound himself to raise two armies against the Huguenots—the one to act under Mayenne in Dauphiny, the other in Poitou under a chief of the King's own choosing. The power of the League was to be further strengthened by their being put into possession of more strong places; and Guise himself was to have complete com-

mand over the military resources and the administration of justice; and it was agreed that the States General were shortly to be called together. It is needless to say that in the course of these proceedings the usual comedy of duplicity and hypocrisy was sustained on both sides—the King professing the highest enthusiasm for the principles of the League, and the Duke overwhelming the King with protestations of loyalty and devotion to his person. After the signing of the edict the King and Guise met at Chartres on the most affectionate terms; but on one single occasion, as they dined together, the King betrayed the bitterness of his heart. Henri made the Prince of Lorraine fill his glass, and then said, "To whom shall we drink? let us drink to our brave friends the Huguenots!"—"Well said, sire!" replied the Duke. "And to our brave barricaders!" added the King; "do not let us forget *them!*" The Duke laughed, but his laugh, according to the chronicler, "*ne passa pas le nœud de la gorge;*" for the irony of the King's expression suggested poison in the wine.

The States-General came together at Blois in September, 1588. But in the interval between the flight of the king from Paris and the meeting of the Assembly, Europe had been delivered from an awful state of apprehension by the bravery of English seamen, aided by the inflexible courage of the boatmen of Holland, who nailed Parma, with his magnificent army, to the coasts of Flanders. Henri III. himself, Catholic as he was, could not conceal his joy when, in August, he received the news of the dispersion of the Armada. From this time he assumed a bolder front to his enemies, and more confidence in his own judgment and his royal prerogatives. The Queen-mother, who had long ceased to regard her son with that affection which she had lavished on the young victor of Jarnac and Montcontour, had of late given such manifest counsel in favor of the Guises, that Henri had wholly withdrawn his confidence from her. Catherine affected to call Guise her *bâton de vieillesse*, and was looking forward to the prospects of the continuation of her line through her grandchild the heir of the House of Lorraine. Henri consequently now removed from his council all the ministers whom he believed to be in the interest of the Queen-mother, and substituted others in their place.

The States-General were the great affair both of League and King. Both sides were confident of getting the majority in the Assembly. The League proceeded to work the elections in the provincial towns with furious energy. The Leaguers took care that none but the most violent of their party should be delegated to the Assembly, and the deputies of the towns when they met together made up a body of the lowest, most ignorant, and seditious of the country burgesses; only a few nobles on the benches of the nobility were of any reputation at all. The States began to show their spirit by electing the furious Cardinal de Guise as president of the clergy; La Chapelle Marteau, one of the most factious members of the Sixteen, as president of the Third Estate; while the president of the nobility was Brissac, one of the chief contrivers of the barricades, an insolent young noble, who had vowed personal hostility to the King.

At the opening of the Assembly Guise appeared in triumphant attitude: he occupied a chair below the King in front of the Assembly, in magnificent attire, in a doublet of white satin with a cape of black velvet embroidered with silver and pearls. With the grand collar of his order about his neck, and the staff of his office in his hand, he darted his eyes amid the assembly in search of his partisans, and his dauntless air, the imposing assurance of his fine form and aspect, filled his adherents with confidence in his fortune and in his courage.

Since the days of Chilpéric, no sovereign of France had ever been subjected to such humiliation as Henri had now to suffer at the hands of his subjects. It continued for nearly three months. Day by day the King, some of whose outward frivolity was assumed in order to conceal his inward mortification, and who flattered himself that he concealed the genius of a Machiavelli beneath his external garb of effeminacy, lived a life of fear and humiliation. Concessions, prayers, assurances of repentance and amendment from the royal lips, were all tried on the rebellious deputies, but all were useless. The throne was made daily a stool of repentance, on which the King sat with a smile on his lips but

with rage in his heart. His supplications for money were abject and incessant; he even exhibited his threadbare clothes, promised parsimony of the severest character, said he would in future make one coat last three months, and have one capon on the table where he had had two. Nevertheless, all supplies were refused, his ministers, officers, and favorites threatened. Distrust and insult was his daily portion. Henri threw the whole responsibility of these accumulated outrages on the Duke of Guise alone, who had the audacity to take up his office of *grand maître* of the King, and to occupy apartments in the château.

After months of anguish and mental conflicts, exasperated and driven wild again and again by some fresh scene of insolence on the part of the Duke, Henri III. determined to carry into effect at Blois the design he had meditated at Paris previous to the day of the Barricades, and to assassinate Guise. Assassination offered in these days so simple a solution of a difficulty that few would be induced to raise any question as to the right of the King, who held the power of life and death, to get rid of his most dangerous enemy and rebellious subject in this way, and least of all could the Duke of Guise, the chief butcher and assassin of St. Bartholomew, cavil at this superjudicial exercise of the royal prerogative.

When Henri on the 18th of December, after exposing the bitterness of his heart and the peril of the State, consulted three of his nearest councillors on his project, they demanded twenty-four hours for reflection, and on the following day returned with three other advisers; with one exception, all counselled the assassination of Guise without trial, since a trial would be impossible. Guise was a traitor and a rebel, and he ought to die. Loignac, the captain of his guard of bravoes, the forty-five, agreed to do the deed with his band. All due precautions were taken to make arrangements for the project with stealth and secrecy, for Guise necessarily was wary and suspicious, and never usually visited the King without a strong guard of gentlemen. On this occasion he showed such a blind disregard of all precaution, in spite of reiterated secret warnings of the intentions of the King, as is inconceivable in a man who was a murderer himself, and full of deceit and treachery.*

On the morning of the 23d the King rose at four in the morning, and distributed his guards about his apartment to wait for Guise, who had been called to a council at eight. The Duke came to the great hall dressed in a new gray satin dress, with a cloak of black velvet upon his arm. As soon as he entered, the guards behind him closed all communication from without; he sat down by the fire to warm himself till he was summoned to the King's cabinet. He was quite at his ease; he asked for some sugared plums from the King's cupboard and sent for a pocket-handkerchief. It was announced the King would receive him; he rose and entered the antechamber in which was the King's bed, and where eight of the body-guard were standing round the chimney; the Duke saluted them, and they followed him as though in respect, but their movement seems to have raised his suspicion, for as he reached the door of the King's cabinet he took his beard in his hand and turned round to look at the man who followed him. At the same instant his arm was seized and a dagger plunged into his bosom; the rest set upon him; one seized his legs, another struck him on the back of the neck; wounded as he was, unable to draw his sword, he struggled and dragged the whole party across the room to the King's bed, at the foot of which he fell. Henri, who had been waiting in agonizing anxiety behind the door of his cabinet, came out and treated Guise as Guise had treated the murdered Coligny, he stamped upon his face, and, looking at him, said, "*Comme il est grand!*"

Two days after this the violent Cardinal de Guise was assassinated in prison, and the bodies of both the brothers were burnt. The Queen-mother, who was also at Blois, as though in disgust at such a deed being executed without her aid or counsel, died on the 5th of January, 1589.

Had Henri III. now called d'Epernon and his musketeers to his side immediately and marched upon Paris, he might

* He said, "Quand je verrais la mort entrer par la fenêtre, je ne sortirais point par la porte pour la fuir."

have commanded the insurrection and awed the spirit of the Leaguers, but having perpetrated these violent acts his usual irresolution returned, and he remained at Blois. The news of the death of the Guises threw Paris and the League into a paroxysm of rage and a wild thirst for vengeance. The agitation reached a stage of frenzy and delirium; the government of the League became, by rejection of all its more moderate members, still more revolutionary. The Sorbonne, after deliberation, declared the people to be liberated from their oath of allegiance to the King. A federative union was organized among the cities of France as town after town declared for the League. A new declaration of the League against the King was published, which many of the members signed with their own blood. The capital was kept in a state of terrorism, which fanatic extravagance and the ubiquitous inevitable powers of espionage possessed by the priests in the confessional rendered all-embracing. Religious processions were organized to pray for the vengeance of heaven on "*Henri de Valois.*" One, consisting of the children of Paris, was made to the Abbey of Saint Geneviève; all carried tapers, and as the head of the procession reached the porch of the church, the children threw their tapers to the ground, crying, "*Dieu éteigne la race des Valois.*"

The defection of his own troops, the increase of the insurrectionary spirit throughout France, and the successes of Mayenne, the brother of Guise and the General of the League, reduced the miserable King to such necessity that at last the assassin of St. Bartholomew was, in spite of his antipathies and aversions, compelled to hold out his hand to the Huguenots, who, under the guidance of their chief, Henri of Navarre, still kept the field, and by whose instrumentality France was ultimately saved from the abyss of ruin towards which she was daily tending, and her royalty redeemed from ignominy, impotence, and servitude.

The day of the union of the two kings marked a great crisis in the history of France and of the Reformed religion.

In the course of the history of the great contest which we have thus briefly portrayed, it will be observed that all the great and pure names of the time, with the exception of Michel l'Hôpital, who partook himself largely of the spirit of the reformed doctrines, were found in the Huguenot ranks. Henri of Navarre, as Henri IV. of France, has left behind him the most popular reputation of all French sovereigns since St. Louis; and such men as Coligny and his brothers, La Noue, *bras de fer*, the Bayard of the Huguenots, Lesdiguières, the invincible defender of Dauphiny, Duplessis-Mornay, the friend of Sir Philip Sydney, and Ramus, another of the victims of the St. Bartholomew, would do honor to the history of any age or country; and the reflection that so noble a race has been extirpated from the land by centuries of violence and persecution, makes true against their oppressors the exclamation of the father of d'Aubigné at sight of the executions of Amboise, "*Les bourreaux, ils ont décapité la France.*"

Macmillan.

SCIENTIFIC EDUCATION: NOTES OF AN AFTER-DINNER SPEECH.

BY PROFESSOR HUXLEY.

MR. THACKERAY, talking of after-dinner speeches has lamented that "one never can recollect the fine things one thought of in the cab," in going to the place of entertainment. I am not aware that there are any "fine things" in the following pages, but such as there are stand to a speech which really did get itself spoken, at the hospitable table of the Liverpool Philomathic Society, more or less in the position of what "one thought of in the cab." T. H. H.

The introduction of scientific training into the general education of the country is a topic upon which I could not have spoken without some more or less apologetic introduction a few years ago. But upon this, as upon other matters, public opinion has of late undergone a rapid

modification. Committees of both houses of the Legislature have agreed that something must be done in this direction, and have even thrown out timid and faltering suggestions as to what should be done; while at the opposite pole of society, committees of working-men have expressed their conviction that scientific training is the one thing needful for their advancement, whether as men or as workmen. Only the other day, it was my duty to take part in the reception of a deputation of London working-men, who desired to learn from Sir Roderick Murchison, the director of the Royal School of Mines, whether the organization of the institution in Jermyn Street could be made available for the supply of that scientific instruction, the need of which could not have been apprehended or stated more clearly than it was by them.

The heads of colleges in our great universities (who have not the reputation of being the most mobile of persons) have, in several cases, thought it well that out of the great number of honors and rewards at their disposal, a few should hereafter be given to the cultivators of the physical sciences. Nay, I hear that some colleges have even gone so far as to appoint one or, may be, two special tutors for the purpose of putting the facts and principles of physical science before the undergraduate mind. And I say it with gratitude and great respect for those eminent persons, that the head masters of our public schools, Eton, Harrow, Winchester, have addressed themselves to the problem of introducing instruction in physical science among the studies of those great educational bodies, with much honesty of purpose and enlightenment of understanding; and I live in hope that, before long, important changes in this direction will be carried into effect in those strongholds of ancient prescription. In fact, such changes have already been made, and physical science, even now, constitutes a recognised element of the school curriculum in Harrow and Rugby, whilst I understand that ample preparations for such studies are being made at Eton and elsewhere.

Looking at these facts, I might perhaps spare myself the trouble of giving any reasons for the introduction of physical science into elementary education; yet I cannot but think that it may be well if I place before you some considerations which, perhaps, have hardly received full attention.

At other times and in other places I have endeavored to state the higher and more abstract arguments by which the study of physical science may be shown to be indispensable to the complete training of the human mind; but I do not wish it to be supposed that, because I happen to be devoted to more or less abstract and "unpractical" pursuits, I am insensible to the weight which ought to be attached to that which has been said to be the English conception of Paradise—viz. "getting on." I look upon it, that "getting on" is a very important matter indeed. I do not mean merely for the sake of the coarse and tangible results of success, but because humanity is so constituted that a vast number of us would never be impelled to those stretches of exertion which make us wiser and more capable men, if it were not for the absolute necessity of putting on our faculties all the strain they will bear, for the purpose of "getting on" in the most practical sense.

Now the value of a knowledge of physical science as a means of getting on, is indubitable. There are hardly any of our trades, except the merely huckstering ones, in which some knowledge of science may not be directly profitable to the pursuer of that occupation. As industry attains higher stages of its development, as its processes become more complicated and refined, and competition more keen, the sciences are dragged in, one by one, to take their share in the fray; and he who can best avail himself of their help is the man who will come out uppermost in that struggle for existence, which goes on as fiercely beneath the smooth surface of modern society as among the wild inhabitants of the woods.

But, in addition to the bearing of science on ordinary practical life, let me direct your attention to its immense influence on several of the professions I ask any one who has adopted the calling of an engineer, how much time he lost when he left school, because he had to devote himself to pursuits which were absolutely novel and strange, and of which he had not obtained the remotest conception from his instructors? He had to famil-

iarize himself with ideas of the course and powers of nature, to which his attention had never been directed during his school-life, and to learn, for the first time, that a world of facts lies outside and beyond the world of words. I appeal to those who know what Engineering is, to say how far I am right in respect to that profession; but with regard to another, of no less importance, I shall venture to speak of my own knowledge. There is no one of us who may not at any moment be thrown, bound hand and foot by physical incapacity, into the hands of a medical practitioner. The chances of life and death for all and each of us may at any moment depend on the skill with which that practitioner is able to make out what is wrong in our bodily frames, and on his ability to apply the proper remedy to the defect.

The necessities of modern life are such, and the class from which the medical profession is chiefly recruited is so situated, that few medical men can hope to spend more than three or four, or it may be five, years in the pursuit of those studies which are immediately germane to physic. How is that all too brief period spent at present? I speak as an old examiner, having served some eleven or twelve years in that capacity in the University of London, and therefore having a certain practical acquaintance with the subject; but I might fortify myself by the authority of the President of the College of Surgeons, Mr. Quain, whom I heard the other day in an admirable address (the Hunterian Oration) deal fully and wisely with this very topic.*

A young man commencing the study of medicine is at once required to endeavour to make an acquaintance with a number of sciences, such as Physics, as Chemistry, as Botany, as Physiology, which are absolutely and entirely strange to him, however excellent his so-called education at school may have been. Not only is he devoid of all apprehension of scientific conceptions, not only does he fail to attach any meaning to the words "matter," "force," or "law" in their scientific senses, but, worse still, he has no notion of what it is to come into contact with nature, or to lay his mind alongside of a physical fact, and try to conquer it in the way our great naval hero told his captains to master their enemies. His whole mind has been given to books, and I am hardly exaggerating if I say that they are more real to him than nature. He imagines that all knowledge can be got out of books, and rests upon the authority of some master or other; nor does he entertain any misgiving that the method of learning which led to proficiency in the rules of grammar will suffice to lead him to a mastery of the laws of nature. The youngster, thus unprepared for serious study, is turned loose among his medical studies, with the result, in nine cases out of ten, that the first year of his curriculum is spent in learning how to learn. Indeed, he is lucky, if at the end of the first year, by the exertions of his teachers and his own industry, he has acquired even that art of arts. After which there remain not more than three, or perhaps four, years for the profitable study of such vast sciences as Anatomy, Physiology, Therapeutics, Medicine, Surgery, Obstetrics, and the like, upon his knowledge or ignorance of which it depends whether the practitioner shall diminish or increase the bills of mortality. Now what is it but the preposterous condition of ordinary school

* Mr. Quain's words (*Medical Times and Gazette*, February 20) are:—"A few words as to our special Medical course of instruction and the influence upon it of such changes in the elementary schools as I have mentioned. The student now enters at once upon several sciences—physics, chemistry, anatomy, physiology, botany, pharmacy, therapeutics—all these, the facts and the language and the laws of each, to be mastered in eighteen months. Up to the beginning of the Medical course many have learned little. We cannot claim anything better than the Examiner of the University of London and the Cambridge Lecturer have reported, for their Universities. Supposing that at school young people had acquired some exact elementary knowledge in physics, chemistry and a branch of natural history—say botany—with the physiology connected with it, they would then have gained necessary knowledge, with some practice in inductive reasoning. The whole studies are processes of observation and induction—the best discipline of the mind for the purposes of life—for our purposes not less than any. 'By such study (says Dr. Whewell) of one or more departments of inductive science the mind may escape from the thraldom of mere words.' By that plan the burden of the early Medical course would be much lightened, and more time devoted to practical studies, including Sir Thomas Watson's 'final and supreme stage' of the knowledge of Medicine."

education which prevents a young man of seventeen, destined for the practice of medicine, from being fully prepared for the study of nature, and from coming to the medical school equipped with that preliminary knowledge of the principles of Physics, of Chemistry, and of Biology, upon which he has now to waste one of the precious years, every moment of which ought to be given to those studies which bear directly upon the knowledge of his profession?

There is another profession, to the members of which, I think, a certain preliminary knowledge of physical science might be quite as valuable as to the medical man. The practitioner of medicine sets before himself the noble object of taking care of man's bodily welfare; but the members of this other profession undertake to "minister to minds diseased," and, so far as may be, to diminish sin and soften sorrow. Like the medical profession, the clerical, of which I now speak, rests its power to heal upon its knowledge of the order of the universe—upon certain theories of man's relation to that which lies outside him. It is not my business to express any opinion about these theories. I merely wish to point out that, like all other theories, they are professedly based upon matter of fact. Thus the clerical profession has to deal with the facts of nature from a certain point of view; and hence it comes into contact with that of the man of science, who has to treat the same facts from another point of view. You know how often that contact is to be described as collision, or violent friction; and how great the heat, how little the light, which commonly results from it.

In the interests of fair play, to say nothing of those of mankind, I ask, Why do not the clergy as a body acquire, as a part of their preliminary education, some such tincture of physical science as will put them in a position to understand the difficulties in the way of accepting their theories, which are forced upon the mind of every thoughtful and intelligent man who has taken the trouble to instruct himself in the elements of natural knowledge?

Some time ago it was my fate to attend a large meeting of the clergy for the purpose of delivering an address which I had been invited to give. I spoke of some of the most elementary facts in physical science, and of the manner in which they directly contradict certain of the ordinary teachings of the clergy. The result was that, after I had finished, one section of the assembled ecclesiastics attacked me with all the intemperance of pious zeal, for stating facts and conclusions which no competent judge doubts; while, after the first speakers had subsided, amidst the cheers of the great majority of their colleagues, the more rational minority rose to tell me that I had taken wholly superfluous pains; that they already knew all about what I had told them, and perfectly agreed with me. A hard-headed friend of mine, who was present, put the not unnatural question, "Then why don't you say so in your pulpits?" to which inquiry I heard no reply.

In fact, the clergy are at present divisible into three sections: an immense body who are ignorant and speak out; a small proportion who know and are silent; and a minute minority who know and speak according to their knowledge. By the clergy, I mean especially the Protestant clergy. Our great antagonist—I speak as a man of science—the Roman Catholic Church, the one great spiritual organization which is able to resist, and must, as a matter of life and death, resist the progress of science and modern civilization, manages her affairs much better.

It was my fortune some time ago to pay a visit to one of the most important of the institutions in which the clergy of the Roman Catholic Church in these islands are trained; and it seemed to me that the difference between these men and the comfortable champions of Anglicanism and of Dissent, was comparable to the difference between our gallant Volunteers and the trained veterans of Napoleon's Old Guard.

The Catholic priest is trained to know his business, and do it effectually. The professors of the college in question, learned, zealous, and determined men, permitted me to speak frankly with them. We talked like outposts of opposed armies during a truce—as friendly enemies; and when I ventured to point out the difficulties their students would have to encounter from scientific thought, they

replied: "Our Church has lasted many ages, and has passed safely through many storms. The present is but a new gust of the old tempest, and we do not turn out our young men less fitted to weather it, than they have been, in former ages, to cope with the difficulties of those times. The heresies of the day are explained to them by their professors of philosophy and science, and they are taught how those heresies are to be met."

I heartily respect an organization which faces its enemies in this way; and I wish that all ecclesiastical organizations were in as effective a condition. I think it would be better, not only for them but for us. The army of liberal thought is, at present, in very loose order; and many a spirited free-thinker makes use of his freedom mainly to vent nonsense. We should be the better for a vigorous and watchful enemy to hammer us into cohesion and discipline, and I, for one, lament that the bench of Bishops cannot show a man of the calibre of Butler of the "Analogy," who, if he were alive, would make short work of much of the current *à priori* "infidelity."

I hope you will consider that the arguments I have now stated, even if there were no better ones, constitute a sufficient apology for urging the introduction of science into schools. The next question to which I have to address myself is, What sciences ought to be thus taught? And this is one of the most important of questions, because my side (I am afraid I am a terribly candid friend) sometimes spoils its cause by going in for too much. There are other forms of culture beside physical science, and I should be profoundly sorry to see the fact forgotten, or even to observe a tendency to starve or cripple literary or æsthetic culture for the sake of science. Such a narrow view of the nature of education has nothing to do with my firm conviction that a complete and thorough scientific culture ought to be introduced into all schools. By this, however, I do not mean that every schoolboy should be taught everything in science. That would be a very absurd thing to conceive, and a very mischievous thing to attempt. What I mean is that no boy nor girl should leave school without possessing a grasp of the general character of science, and without having been disciplined, more or less, in the methods of all sciences; so that, when turned into the world to make their own way, they shall be prepared to face scientific discussions and scientific problems, not by knowing at once the conditions of every problem, or by being able at once to solve it; but by being familiar with the general current of scientific thought, and being able to apply the methods of science in the proper way, when they have acquainted themselves with the conditions of the special problem.

That is what I understand by scientific education. To furnish a boy with such an education, it is by no means necessary that he should devote his whole school existence to physical science: in fact, no one would lament so one-sided a proceeding more than I. Nay more, it is not necessary for him to give up more than a moderate share of his time to such studies, if they be properly selected and arranged, and if he be trained in them in a fitting manner

I conceive the proper course to be somewhat as follows. To begin with, let every child be instructed in those general views of the phenomena of nature for which we have no exact English name. The nearest approximation to a name for what I mean, which we possess, is "physical geography." The Germans have a better, "Erdkunde" ("earth knowledge" or "geology" in its etymological sense), that is to say, a general knowledge of the earth, and what is on it, in it, and about it. If any one who has had experience of the ways of young children will call to mind their questions, he will find that so far as they can be put into any scientific category, they come under this head of "Erdkunde." The child asks, "What is the moon, and why does it shine?" "What is this water, and where does it run?" "What is the wind?" "What makes the waves in the sea?" "Where does this animal live, and what is the use of that plant?" And if not snubbed and stunted by being told not to ask foolish questions, there is no limit to the intellectual craving of a young child; nor any bound to the slow but solid accretion of knowledge and development of the thinking faculty in this way. To all such questions, answers which are necessarily incomplete, though true as far as they go, may be given by any teacher whose ideas

represent real knowledge and not mere book learning; and a panoramic view of nature, accompanied by a strong infusion of the scientific habit of mind, may thus be placed within the reach of every child of nine or ten.

After this preliminary opening of the eyes to the great spectacle of the daily progress of nature, as the reasoning faculties of the child grow, and he becomes familiar with the use of the tools of knowledge—reading, writing, and elementary mathematics—he should pass on to what is, in the more strict sense, physical science. Now there are two kinds of physical science: the one regards form and the relation of forms to one another; the other deals with causes and effects. In many of what we term our sciences, these two kinds are mixed up together; but systematic botany is a pure example of the former kind, and physics of the latter kind of science. Every educational advantage which training in physical science can give is obtainable from the proper study of these two; and I should be contented, for the present, if they, added to our "Erdkunde," furnished the whole of the scientific curriculum of schools. Indeed, I conceive it would be one of the greatest boons which could be conferred upon England, if henceforward every child in the country were instructed in the general knowledge of the things about it—in the elements of physics, and of botany. But I should be still better pleased if there could be added somewhat of chemistry, and an elementary acquaintance with human physiology.

So far as school education is concerned, I want to go no further just now; and I believe that such instruction would make an excellent introduction to that preparatory scientific training which, as I have indicated, is so essential for the successful pursuit of our most important professions. But this modicum of instruction must be so given as to insure real knowledge and practical discipline. If scientific education is to be dealt with as mere bookwork, it will be better not to attempt it, but to stick to the Latin Grammar, which makes no pretence to be anything but bookwork.

If the great benefits of scientific training are sought, it is essential that such training should be real: that is to say, that the mind of the scholar should be brought into direct relation with fact that he should not merely be told a thing, but made to see by the use of his own intellect and ability that the thing is *so* and no otherwise. The great peculiarity of scientific training, that in virtue of which it cannot be replaced by any other discipline whatsoever, is this bringing of the mind directly into contact with fact, and practising the intellect in the completest form of induction; that is to say, in drawing conclusions from particular facts made known by immediate observation of nature.

The other studies which enter into ordinary education do not discipline the mind in this way. Mathematical training is almost purely deductive. The mathematician starts with a few simple propositions, the proof of which is so obvious that they are called self-evident, and the rest of his work consists of subtle deductions from them. The teaching of languages, at any rate as ordinarily practised, is of the same general nature,—authority and tradition furnish the data and the mental operations of the scholar are deductive.

Again: If history be the subject of study, the facts are still taken upon the evidence of tradition and authority. You cannot make a boy see the battle of Thermopylæ for himself, or know of his own knowledge that Cromwell once ruled England. There is no getting into direct contact with natural fact by this road; there is no dispensing with authority, but rather a resting upon it.

In all these respects, science differs from other educational discipline, and prepares the scholar for common life. What have we to do in every-day life? Most of the business which demands our attention is matter of fact, which needs, in the first place, to be accurately observed or apprehended; in the second, to be interpreted by inductive and deductive reasonings, which are altogether similar in their nature to those employed in science. In the one case, as in the other, whatever is taken for granted is so taken at one's own peril; fact and reason are the ultimate arbiters, and patience and honesty are the great helpers out of difficulty.

But if scientific training is to yield its most eminent results, it must, I repeat, be made practical. That is to say, in explaining to a child the general phenomena of nature, you must, as far as possible, give reality to your teaching by object-lessons;

in teaching him botany, he must handle the plants and dissect the flowers for himself; in teaching him physics and chemistry, you must not be solicitous to fill him with information, but you must be careful that what he learns he knows of his own knowledge. Don't be satisfied with telling him that a magnet attracts iron. Let him see that it does; let him feel the pull of the one upon the other for himself. And, especially, tell him that it is his duty to doubt until he is compelled, by the absolute authority of nature, to believe that which is written in books. Pursue this discipline carefully and conscientiously, and you may make sure that, however scanty may be the measure of information which you have poured into the boy's mind, you have created an intellectual habit of priceless value in practical life.

One is constantly asked, When should this scientific education be commenced? I should say, with the dawn of intelligence. As I have already said, a child seeks for information about matters of physical science as soon as it begins to talk. The first teaching it wants is an object-lesson of one sort or another; and as soon as it is fit for systematic instruction of any kind, it is fit for a modicum of science.

People talk of the difficulty of teaching young children such matters, and in the same breath insist upon their learning their Catechism, which contains propositions far harder to comprehend than anything in the educational course I have proposed. Again, I am incessantly told that we who advocate the introduction of science into schools make no allowance for the stupidity of the average boy or girl; but, in my belief, that stupidity, in nine cases out of ten, "*fit, non nascitur*," and is developed by a long process of parental and pedagogic repression of the natural intellectual appetites, accompanied by a persistent attempt to create artificial ones for food which is not only tasteless, but essentially indigestible.

Those who urge the difficulty of instructing young people in science are apt to forget another very important condition of success—important in all kinds of teaching, but most essential, I am disposed to think, when the scholars are very young. This condition is, that the teacher should himself really and practically know his subject. If he does, he will be able to speak of it in the easy language, and with the completeness of conviction, with which he talks of any ordinary every-day matter. If he does not, he will be afraid to wander beyond the limits of the technical phraseology which he has got up; and a dead dogmatism, which oppresses or raises opposition, will take the place of the lively confidence, born of personal conviction, which cheers and encourages the eminently sympathetic mind of childhood.

I have already hinted that such scientific training as we seek for may be given without making any extravagant claim upon the time now devoted to education. We ask only for "a most favored nation" clause in our treaty with the schoolmaster; we demand no more than that science shall have as much time given to it as any other single subject—say four hours a week in each class of an ordinary school.

For the present, I think men of science would be well content with such an arrangement as this; but, speaking for myself, I do not pretend to believe that such an arrangement can be, or will be, permanent. In these times the educational tree seems to me to have its roots in the air, its leaves and flowers in the ground; and I confess I should very much like to turn it upside down, so that its roots might be solidly embedded among the facts of nature, and draw thence a sound nutriment for the foliage and fruit of literature and of art. No educational system can have a claim to permanence unless it recognizes the truth that education has two great ends to which everything else must be subordinated. The one of these is to increase knowledge; the other is to develop the love of right and the hatred of wrong.

With wisdom and uprightness a nation can make its way worthily, and beauty will follow in the footsteps of the two, even if she be not specially invited; while there is, perhaps, no sight in the whole world more saddening and revolting than is offered by men sunk in ignorance of everything but what other men have written; seemingly devoid of moral belief or guidance, but with the sense of beauty so keen, and the power of expression so cultivated, that their sensual

caterwauling may be almost mistaken for the music of the spheres.

At present, education is almost entirely devoted to the cultivation of the power of expression, and of the sense of literary beauty. The matter of having anything to say beyond a hash of other people's opinions, or of possessing any criterion of beauty, so that we may distinguish between the God-like and the devilish, is left aside as of no moment. I think I do not err in saying that if science were made the foundation of education, instead of being, at most, stuck on as cornice to the edifice, this state of things could not exist.

In advocating the introduction of physical science as a leading element in education, I by no means refer only to the higher schools. On the contrary, I believe that such a change is even more imperatively called for in those primary schools in which the children of the poor are expected to turn to the best account the little time they can devote to the acquisition of knowledge. A great step in this direction has already been made by the establishment of science-classes under the Department of Science and Art,—a measure which came into existence unnoticed, but which will, I believe, turn out to be of more importance to the welfare of the people than many political changes, over which the noise of battle has rent the air.

Under the regulations to which I refer, a schoolmaster can set up a class in one or more branches of science; his pupils will be examined, and the State will pay him, at a certain rate, for all who succeed in passing. I have acted as an examiner under this system from the beginning of its establishment, and this year I expect to have not fewer than a couple of thousand sets of answers to questions in Physiology, mainly from young people of the artisan class, who have been taught in the schools which are now scattered all over Great Britain and Ireland. Some of my colleagues, who have to deal with subjects such as Geometry, for which the present teaching power is better organized, I understand are likely to have three or four times as many papers. So far as my own subjects are concerned, I can undertake to say that a great deal of the teaching, the results of which are before me in three examinations, is very sound and good, and I think it is in the power of the examiners, not only to keep up the present standard, but to cause an almost unlimited improvement. Now what does this mean? It means that by holding out a very moderate inducement, the masters of primary schools in many parts of the country have been led to convert them into little foci of scientific instruction, and that they and their pupils have contrived to find or to make time enough to carry out this object with a very considerable decree of efficiency. That efficiency will, I doubt not, be very much increased as the system becomes known and perfected, even with the very limited leisure left to masters and teachers on week-days. And this leads me to ask, Why should scientific teaching be limited to week-days?

Ecclesiastically-minded persons are in the habit of calling things they do not like by very hard names, and I should not wonder if they brand the proposition I am about to make as blasphemous, and worse. But, not minding this, I venture to ask, Would there really be anything wrong in using part of Sunday for the purpose of instructing those who have no other leisure, in a knowledge of the phenomena of nature, and of man's relation to nature?

I should like to see a scientific Sunday-school in every parish, not for the purpose of superseding any existing means of teaching the people the things that are for their good, but side by side with them. I cannot but think that there is room for all of us to work in helping to bridge over the great abyss of ignorance which lies at our feet.

And if any of the ecclesiastical persons to whom I have referred, object that they find it derogatory to the honor of the God whom they worship, to awaken the minds of the young to the infinite wonder and majesty of the works which they proclaim His, and to teach them those laws which must needs be His laws, and therefore of all things needful for man to know—I can only recommend them to be let blood and put on low diet. There must be something very wrong going on in the instrument of logic if it turns out such conclusions from such premises.

LECKY'S "HISTORY OF EUROPEAN MORALS."*

We come late to the production of things which seem very obvious. The world has been speculating about morals since it began to speculate at all. We are overwhelmed with systems of moral philosophy, and theories about human nature and its laws. But it is only recently that it seems to have occurred to people that it is desirable to attempt to examine and compare the actual phenomena of morality in action; to see if its working and aspects were, as they are assumed to be in most moral treatises, always uniform, or, if there have been differences in tendencies or developments as times and man's circumstances changed, to mark and trace them; to ascertain and generalize, if the facts admitted it, the course and revolutions of moral ideas, the rise and predominance of this one, the decay of that one, the combined result of their influence one on another, as the fortunes of the human race ran their course. That is to say, it was not till comparatively the other day thought necessary for the construction of moral theories to have an enlarged and comprehensive knowledge of the ways in which, as a matter of fact, morality has shown itself in the conduct and sentiments of men and society at various times: it never struck any of the many keen and powerful inquirers interested in the study of morality to write a history of morals—to state what have been the facts which their vast and complicated subject has presented in that scene of human activity which has been going on so long and so widely, and in which there have been such endlessly diversified opportunities to observe the real play of moral forces. History, of course, has been largely laid under contribution in philosophical speculations on morals; but it is a new thing to attempt a history of morals, of their phases and progress and alternations, simply as a matter of fact, as we have had histories of mathematics, or of astronomy, or of law, or generally of experimental science, or of the various schools of ancient and modern philosophy.

Since morality is based, as a matter of philosophy, on the facts of human nature as we are supposed to find them, it would be almost unaccountable that such a generalized and comprehensive statement of them should not have been attempted, were it not for the enormous difficulty of the undertaking. This is so great as to render it, at first sight, in any complete and satisfactory sense, a chimerical and futile one. For the facts have to be got at, and then to be valued; and both these processes, on the scale which a history of morals supposes, imply not only a penetration and capacity of mind in the observer, but a possibility of definite verification in the phenomena themselves which none but very sanguine people will as yet anticipate, when the subject of observation is that complicated and enigmatical thing which we call human nature. Any historical account, of wide range, of the facts of moral consciousness and governing principle, exhibited in the manifold conditions under which man has found himself in the world, can only be presented and accepted with great reserve, and many understood deductions. Of course, if it is to be only the interpretation of moral appearances on any given moral theory,—the utilitarian, or the intuitive, or the religious theory of morals,—the work is easy enough. Any one could thus trace the progress and phases of morality, and make a consistent and striking picture, with facts for its basis. We have only to take the facts which help us, or which we can explain, and leave those which perplex and baffle us. But to deal honestly with the facts, as we really meet with them; to accept them as they come; not to be taken in and imposed upon by appearances, often so ambiguous, fluctuating, and blurred, or so subtle and delicate that they are difficult to seize with truth; to disentangle elements essentially distinct, yet continually associated by nature, and simulating one another; and when we have unravelled the fact, and are clear about it, to be just to it, and also just to our own principles in such a matter as morality, the very law of our being, is a task which concentrates in itself in the highest degree all the well-known difficulties which try the mettle of historians;

* New York: D. Appleton & Co. 2 vols. crown 8vo, pp. 498 and 423.

In such a history we have to meet Epicurus and Zeno, the great Roman Stoics and the great Greek Sceptics and Platonists, Lucian and St. Paul, Julian and St. Antony, Pascal and Gassendi, Hobbes and Bishop Wilson; and we have not only to see things from the point of view of each thinker and each social state, to meet tracts of time marked by strain and effort, in which severity was dominant, and others in which all was lax, easy, and moderate—periods of asceticism and periods of indulgence, the Renaissance and the Reformation, Puritanism and the age of Rousseau; but we have also to see and understand how each looked to its opposite. Where this varying point of view affects fundamentally all that is of the deepest interest to mankind and to each individual man, it is obvious that the attempt to represent and to judge justly is extreme.

This great subject has been undertaken by Mr. Lecky. He has treated it, as need hardly be said, with great ability, and has written a book of great interest. He has brought to it wide and intelligent reading, much acuteness and considerable powers of sympathy, and a characteristic boldness and sweep of generalization which often takes the reader's mind by storm. With considerable powers of ingenious and happy expression, his language suits itself without effort to what he wants to say; and he is often eloquent from the mere force of luminous statement and deeply-felt discernment of the ultimate and inmost reality of what is before him. His unvarying intention to be strictly candid and rigorously fair only shows by what others may think its failure how hard it is to be candid on so large a scale, where not one or two but all the influences and grounds affecting human belief and life are involved; and how great is the difficulty, often so superficially ignored, of the virtues of the intellect, even to those who most consciously and directly aim at them. Mr. Lecky brings remarkable qualifications to his task, and what he has done will undoubtedly command and reward attention. But his book, in its last result, rather illustrates the difficulties of his subject than surmounts them.

Mr. Lecky has kept distinctly in mind the necessity of limiting and defining his subject. He undertakes to relate the history of morals only within a specified time and on a particular stage; the history of morals in Europe from Augustus to Charlemagne; a most critical period of alteration, transition, and fresh beginnings, but still a restricted portion of the whole history. Further, he lays down with distinctness and frankness the point of view from which he proposes to judge what passes before him. The historian of morals may naturally be expected, before he begins his task, to clear the ground both to his own mind and to his readers as to what he understands morals to be, and what side he takes in the great and still unsettled controversies—at present more speculative, happily, than practical, though of supreme and unexplored importance—on their nature and origin. It does not need to be said that a disciple of Epicurus or Bentham would write as different a history of morals from a disciple of Zeno or Cudworth, as a history of the Reformation written by a Roman Catholic would be different from one written by a Protestant. Accordingly, in a preliminary chapter, which, however open to criticism, has the merit of practical convenience, Mr. Lecky states with perfect clearness the philosophical position from which he surveys and appreciates the field of morals which he has chosen. He does not leave it to be collected or guessed at from the course of his narrative, but he is at great pains to make it plain. It is a position which is equally removed from utilitarianism and from allegiance to any revealed religion, at least as commonly understood. He condemns utilitarianism as profoundly immoral. He treats Christianity as a great phenomenon in human history of the same order as Platonism or Stoicism, though immeasurably more fertile of results, but declines to pronounce on its claims to be something more; and he holds morality in its essence to be as independent of its teaching or sanctions, though, of course, affected by its influence, as it is independent of the teaching of Socrates. He holds the position of an intuitive moralist, who needs to go no further than human nature for the supreme criterion and authority in morals, and who, standing between the utilitarian and religious schools, holds against the one the unalterable distinction between duty and

self-interest, and against the other, that this distinction and the recognition of it are prior to all religious beliefs, and, in their permanent and essential character, absolutely unconnected with them. With the fullest sympathy and admiration for all that religion, since Christianity appeared, has done for morality, it must be understood that his view is non-religious; he writes the history of the influence of Christianity on morals, without reference to the question whether as a religion it is true or false. It may be submitted that the omission to determine the real value of such an element, so unique in its aspect, and so profoundly important in its relation to morals and the truth about the position of man in the world, must make an historical survey, however otherwise full and comprehensive, an incomplete and inadequate one. A man can hardly write very surely and firmly about the influence of Christianity, who has not yet made up his mind whether it is the most awful of truths or the most colossal of delusions, or a *tertium quid*, made up of high truth and base imposture, which has never yet been explained. Perhaps the difficulty is insurmountable; but it ought not to be overlooked that there is the difficulty,—a difficulty which stands in the front, and full in view to any one venturing on Mr. Lecky's ambitious design, and one which has some preliminary claims on his serious attention.

The remarkable qualities which were conspicuous in Mr. Lecky's former book are present in this one. These are, the power of subtle and unexpected generalizations on the phenomena of history and of man's intellectual and moral nature; and the power of massing facts. As to the former, there is hardly anything in this book so brilliant in its freshness and so striking as the preface to the "History of Rationalism;" but in the power of handling a profusion of details, collected by indefatigable and wide-ranging industry, there is no falling off.* But his power of limiting and controlling his generalizations is not equal to the keen sight and quick imaginative constructiveness which create them; and his power of dealing with stiff

* Take as an example the following, from a contrast between ancient and modern civilization:—

"Among the ancients the human mind was chiefly directed to philosophical speculations, in which the law seems to be perpetual oscillation, while among the moderns it has rather tended towards physical science, in which the law is perpetual progress. National power, and, in most cases, even national independence, implied among the ancients the constant energy of high intellectual or moral qualities.

"In modern times, on the other hand, if we put aside religious influences, the principal causes of the superiority of civilized men are to be found in inventions which, when once discovered, can never pass away; and the effects of which are in consequence in a great measure removed from the fluctuations of moral life. The causes which most disturbed or accelerated the normal progress of society in antiquity were the appearance of great men; in modern times they have been the appearance of great inventions. Printing has secured the intellectual achievements of the past, and furnished a sure guarantee of future progress. Gunpowder and military machinery have rendered the triumphs of barbarians impossible. Steam has united nations in the closest bonds. Innumerable mechanical contrivances have given a decisive preponderance to that industrial element which has colored all the developments of our civilization. The leading characteristics of modern societies are in consequence marked out much more by the triumphs of inventive skill than by the sustained energy of moral causes." . . .

This is a good instance of the difficulty of stating a broad and general truth. There is a marked difference between ancient and modern civilization; and one of the most prominent features of this difference is, of course, the place in the latter of mechanical invention, industry, and physical science. But for all that, has there been any want of pure "philosophical speculation" of the most varied and most effective kind, since the Reformation? Has the "constant energy of high intellectual and moral qualities" been less tasked in the last three hundred years of Europe than in the time of Pericles, or the Roman republic? Does not Shakespeare, and all that Shakespeare implies and creates, make a greater difference between Europe and China than the steam-engine or the press? "The leading characteristics of modern societies are marked out much more by the triumphs of inventive skill than by the sustained energy of moral causes." Exclude the age of Elizabeth and Cromwell as not being modern. The present century undoubtedly is marked by the triumph of inventive skill; but, to say nothing of what war has brought out, do its literature and political changes tell of a want of "sustained energy of moral causes" alongside of its inventions?

Mr. Lecky remembers in another place, with that fairness which comes out at last, though not always in the right place, that "the unwearied, unostentatious, and inglorious crusade of England against slavery, may probably be regarded as among the three or four perfectly virtuous acts recorded in the history of nations."

and precise philosophic argument, with all its ramifications and balancings and equipoises, does not seem proportionate to the skill with which he can support a conclusion by an accumulation of well-marshalled and well-put instances, supplied by a ready memory from stores collected by his extensive reading. As has been said, Mr. Lecky opens his history with a chapter of theory. Not content to state his philosophic creed, he goes into controversy, and discusses at length the main questions in debate between the rival schools of moralists, as to the nature and foundation of morality. A moment's consideration must show that, though every thinking man must have taken his side more or less clearly in the dispute, it is quite another thing whether a man is able, or whether it is worth his while, to offer to the public one more attempt to arbitrate between the contending parties, and pronounce a definitive sentence on the merits of their claims. Mr. Lecky states clearly and forcibly, as we have long been accustomed to hear them, the points for and against utilitarianism, but he does not do more; and as he does no more, it was hardly worth the trouble to do so much. He has written what would be a brilliant prize essay in refutation of utilitarianism; but no one can think that he has disposed of the question, or even seriously helped towards the settlement of it. The treatment which he gives to it, professedly exhaustive and conclusive, yet undertaken by the way to prepare for the main purpose of his work, is wholly unequal to the demands of so vast and difficult a controversy, in which he attempts to hold the scales between thinkers like Hobbes and Mill on one side, and Butler and Leibnitz on the other. To do such a work to any purpose would need a writer's undivided purpose, and task his whole devotion: as subsidiary and subordinate to something else, not much can be expected from the attempt. Everybody would have acknowledged Mr. Lecky's right to trace the history of morals from the point of view of an intuitive moralist, without his elaborate, yet partial and unsatisfying, argument on the theory of morals; but few will be convinced by his argument that his point of view is the right one. History, no doubt, to be worth anything, presupposes philosophic culture, and the power of setting the right value on words and thoughts, as well as on men and events. But the provinces, as the talents and processes, of the historian and of the scientific theorist are distinct; and it is a mistake in the historian to weight his proper work with theoretical discussions which he was not called to undertake, and which, unless they are new and independent contributions to our knowledge, are out of place.

All this is said without any sympathy for the moral theories and doctrines which Mr. Lecky impugns; not because they are ours, but because Mr. Lecky's criticism of them seems to fail in doing justice to the real difficulties of the subject, and is wanting in the precision, in the careful allowances, and in the grasp of all the conditions of the problem, which are indispensable if anything is really to come of the inquiry. No thinking man, utilitarian or intuitive moralist, can help seeing that the problems of this inquiry have enormously increased in complexity since the early days when Epicurus and Zeno debated the matter, and when simple unanalyzed terms like pleasure and pain, the *utile* and the *honestum*, the *summum bonum* and the *law of nature*, sufficed for the needs of the disputants. They have grown in complexity since the days of Cudworth and Locke, and they are growing daily more vast and deep. Mr. Lecky hardly appears to be sufficiently alive to this. He sees the weak points of utilitarianism; how it entirely fails to account for the ideas and words which it seeks to explain, and which it only appears to explain by substituting other and different ones for them; how, set side by side with human history and human poetry, it collapses into a factitious and too narrow hypothesis, which they overflow and contradict in every direction and in every form. But he does not see how much utilitarianism does explain of human life and the actual regulation of human conduct; how, hopeless as a complete explanation, it is luminous and unassailable as a partial one. And he fails to appreciate duly the obvious and for-

midable difficulties which present themselves in the aspects of the world to the theory of an intuitive morality, or the way in which intractable facts have compelled gradual and very important modifications in its position, exactly as in the case of utilitarianism persistent facts have bent round the crude and absolute doctrines of Hobbes and Bentham to those of Mr. J. S. Mill. It is not scepticism, but a calm and just estimate of the real claims of the rival theories, to say that the ultimate residuum, after all facts and appearances are taken into account, is only, as far as the theory is concerned, a small balance of probability either way. The conclusion would be tremendous, if human happiness and conduct really rested, as each theory of course supposes, on its certain and conclusive truth; but, happily, they rest on something broader and firmer, and theories are only the measure and the stage of that attainment of scientific knowledge to which in our age we have reached. To another age scientific width, consistency, and completeness may be possible, which are not yet possible to us; just as scientific accuracy and breadth are possible to us which were impossible to the age of Seneca or Plato; as impossible from the conditions and state of development of human knowledge and power, as our astronomy and chemistry were impossible. But one consequence of an adequate sense of the debatable and partial, if not the provisional, nature of all moral theories, would seem to be caution in characterizing them. Mr. Lecky opens his review of the controversy by explaining the necessity of imputing immoral consequences to false theories. Utilitarianism, he states at starting, is "profoundly immoral." A due sense of the real value of all theories, and a consideration of the inevitable effect of words, would have checked him. He means, of course, as he attempts to show at length afterwards, that immoral consequences are logically deducible from utilitarian premises, and that therefore the premises cannot be true. He ought to have recollected, in the first place, that the method of extreme consequences, taken apart from the conditions which all moral theories have to suppose, is a test which is dangerous to most theories, and which certainly the theory of a morality of sentiment or intuition is not more able to support than any other; and in the next place, that there is a force in words which a precise and fair writer hesitates to take advantage of in opening the case and stating the issue between himself and his antagonists. "Profoundly immoral," than which nothing worse could be said of anything, conveys to the reader's mind in its natural sense more than Mr. Lecky meant; which simply is that utilitarianism rests on something which never could have produced morality, and which may be its enemy; but therefore he should not have used it. Considering Mr. Lecky's claim to judicial impartiality, there is considerable reason to complain, and not in this part of his work only, of broadcast and unqualified measures of condemnation, which are not the result of definite charges and proofs, but the reflection at best of general impressions, and apparently more often of the writer's bias and dislikes. A philosophical writer hardly shows himself fit to cope with the difficulties of subtle disputes which depend so much on nice precision of words and carefully measured accuracy of statement, who characterizes the utilitarianism of Hartley—whose view is that "with self-interest man must begin, but he may end in self-annihilation"—as being, in opposition to the coarser doctrines of Hobbes, Mandeville, and Paley, a "refined sensuality;" and who lays down, not as a rhetorical generality, but as a philosophical axiom, that "the universal sentiment of mankind represents self-sacrifice as an essential element of a meritorious act, and means by self-sacrifice the deliberate adoption of the least pleasurable course, without the prospect of any pleasure in return;" and that "the conception of pure disinterestedness is presupposed in all our estimates of virtue." The utilitarian hardly sins more against the plain facts of nature and experience, or states them more artificially and inaccurately, than the intuitive moralist who presents such sweeping assertions as these. Is the love of a child for its parent, of a citizen for his country, of a friend for his friend, only then virtuous when he makes a sacrifice? And what is to be said on such a view of the long tracts of life in

which virtuous men aim at and pass happy days?

Mr. Lecky's strength does not lie, it seems to us, in his power to estimate the argumentative bearings and force and the comparative claims of great rival theories on the subtlest and most difficult questions of human nature, but in the historical insight by which he traces the presence and the connected sequence of moral phenomena in society. The value of his book consists in the fulfilment which it presents of the design set before us in the following extract from his preface:—

"The QUESTIONS with which an historian of morals is chiefly concerned, are the changes that have taken place in the moral standard and in the moral type. By the first, I understand the degrees in which, in different ages, recognized virtues have been enjoined and practised. By the second, I understand the relative importance that in different ages has been attached to different virtues. Thus, for example, a Roman of the age of Pliny, an Englishman of the age of Henry VIII., and an Englishman of our own day, would all agree in regarding humanity as a virtue, and its opposite as a vice; but their judgments of the acts which are compatible with a humane disposition would be widely different. And in addition to this change of standard, there is a continual change in the order of precedence which is given to virtues. Patriotism, chastity, charity, and humility are examples of virtues each of which has in some ages been brought forward as of the most supreme and transcendent importance, and the very basis of a virtuous character; and, in other ages, been thrown into the background, and reckoned among the minor graces of a noble life. The heroic virtues, the amiable virtues, and what are called more especially the religious virtues, form distinct groups, to which, in different periods, different degrees of prominence have been assigned; and the nature, causes, and consequences of these changes in the moral type are among the most important branches of history.

"In estimating, however, the moral condition of an age, it is not sufficient to examine the ideal of moralists. It is necessary also to inquire how far that ideal has been realized among the people.

"The three questions I have now briefly indicated are those which I have especially regarded in examining the moral history of Europe between Augustus and Charlemagne."

It is scarcely possible to exaggerate the importance and interest of the scene which he thus purposes to lay before us. It is the description of the turning-point and determining transition which has governed the direction in which human progress should go forward, and filled it with the living and fruitful seeds of all that we see and all that we undoubtingly hope for. There are clearly marked lines of direction in which the human race has moved on a great scale for long tracts of time, and with great results, but in which it has manifestly gone wrong—has been brought to a final edge where it could go no further, and has come to a standstill; or has become entangled in confusion and helplessness from which only the knowledge and force of stronger families of the race can extricate it. The great nations of the south of Asia are in the last condition; those of the east of Asia in the former. Mr. Lecky's subject is that astonishing moral and social revolution of the first eight centuries of our era, which—out of materials as wild and apparently untamable as Arabs and Afghans, and out of a great decaying civilization which seemed without the principle or power of self-renovation and restoration, and to have reached its last term, like that of China—produced the varied, and fruitful, and unexhausted civilization which has made man in Europe and North America appear almost a different creature from the rest of the human race.

Mr. Lecky takes up the history of morals at a point when a very important part of it had been run and had produced great and permanent effects, determining greatly its future course. The morality of Judaism,—of which Mr. Lecky hardly takes sufficient notice,—if it affected but slightly pagan morality, certainly prepared the ground for the morality of Christian Europe. The history of morals under Augustus is connected indissolubly with two great streams before it—the history of morals in Greece in the philosophic, and before it, in the poetical and heroic age; and the history of morals in the ruder communities of the warlike tillers of the ground in Italy. The moral ideas of the empire resulted from the fusion of these two streams; and a history of European morals, to be complete, must begin much higher, and must use as its materials—what Mr. Lecky has too much neglected in favor of the more dogmatic and formal language of philosophers, even in that portion of which the has

treated—the writings of the poets, and whatever is the native and unstudied expression of real and prevalent sentiment. But a writer is free to choose his ground; and Mr. Lecky begins with the Pagan empire, and takes its moral standard and type as his starting-point. He points out three great features in the moral type of civilization at this period at Rome: first, the predominance, in the ideal of human excellence, of the heroic and magnanimous class of virtues; next, the entire absence of any connection between morality and religion; and lastly, the entire absence of any moral discipline for the many, the multitudes of mankind. The first was due to the coincidence of the old national temper, proved and retempered in a thousand hard trials, with the philosophy of Stoicism, one of the only two Greek schools which the Romans could ever understand. The other was due to the inroads which the Greek philosophic spirit, in whatever shape,—Stoic as well as Epicurean or Sceptic,—had made in the popular religious beliefs which had been in old times connected so intimately with Roman life in war or at home. The last resulted from the fact that the salt of morality was a philosophy; and a philosophy, the result of intellectual effort in active minds of some power, can never, except in indirect ways and at a long distance, be the guide of the many. These three points are variously illustrated with a profusion of interesting details, of which, perhaps, the only complaint to be made is that they are too profuse and unselected, and that the enumeration would have been both more instructive and more permanently impressive if it had gone more by weight and significance and less by tale and number. He makes the mistake sometimes of quoting as characteristic of Roman times what really belongs to all times. If men who denied a God, yet consulted the stars or the almanac to find lucky or unlucky days to bathe or to sow, or if worshippers whose prayers had not been answered ill-treated the images of the gods, or if a Roman theatre cheered the lines of Ennius,—

'Ego deûm genus esse semper dixi et dicam cœlitum;
Sed eos non curare opinor quid agat hominum genus;"—

these things belong rather to a stage of mental cultivation than a state of religion. The almanac is a trusted guide to the rustic of all lands and ages, whether he believes or not; Italian and Spanish and Russian devotees vent their wrath on ill-natured and disappointing saints; and a parallel to the sentiment of Ennius might easily be found, under the natural circumstances leading up to it, in a pious dissenter who never doubted that the hairs of his head are numbered. Plenty of people, perfectly earnest in their religion, would applaud a rebuke given to the unseasonable and presumptuous application of religious considerations to a political question.*

Mr. Lecky sees in Stoicism the true representative doctrine of the Roman society of the early Empire. That is, it expressed and gave distinct body to the best and noblest instincts and thoughts of which that society was capable. In a striking passage he puts the congeniality of Stoicism as a philosophy with the character formed in the Romans by their eventful history, in which the State had aimed at so much, and had so often been on the brink of utter ruin, only averted by the most devoted and unsparing public spirit:—

"The vast place which the rival systems of Zeno and Epicurus occupy in the moral history of mankind, and especially in the closing years of the empire of Paganism, may easily lead us to exaggerate the creative genius of their founders, who in fact did little more than give definitions or intellectual expression to types of excellence that had at all times existed in the world. There have ever been stern, upright, self-controlled, and courageous men, actuated by a pure sense of duty, capable of high efforts of self-sacrifice, somewhat intolerant of the frailties of others, somewhat hard and unsympathizing in the ordinary intercourse of society, but rising to an heroic grandeur as the storm lowered upon their path, and more ready to relinquish life than the cause they believed to be true. There have also always been men of easy tempers and of

* Thus, in the recent election, a zealous district visitor attacked one of her people for the vote which the woman's husband had given: "It was voting against God Almighty." "I told her," was the answer, "that I had much too good an opinion of God Almighty to think that He troubled Himself about our miserable political squabbles." The remark might be unphilosophical, but it was perfectly consistent with the speaker's devout belief in Providence.

amiable dispositions, gentle, benevolent, and pliant, cordial friends and forgiving enemies, selfish at heart, yet ever ready, when it is possible, to conciliate their gratifications with those of others, averse to all enthusiasm, mysticism, utopias, and superstitions, with little depth of character or capacity for self-sacrifice, but admirably fitted to impart and to receive enjoyment, and to render the course of life easy and harmonious. The first are by nature Stoics, and the second Epicureans; and if they proceed to reason about the *summum bonum* or the affections, it is more than probable that in each case their characters will determine their theories. The first will estimate self-control above all other qualities, will disparage the affections, and will endeavor to separate widely the ideas of duty and of interest, while the second will systematically prefer the amiable to the heroic, and the utilitarian to the mystical.

"But while it is undoubtedly true that in these matters character usually determines opinion, it is not less true that character is itself in a great measure governed by national circumstances. Rome was from the earliest times pre-eminently the home of Stoicism. Long before the Romans had begun to reason about philosophy, they had exhibited it in action, and in their speculative days it was to this doctrine that the noblest minds naturally tended. A great nation engaged in perpetual wars, in an age when success in warfare depended neither upon wealth nor upon mechanical genius, but upon the constant energy of patriotic enthusiasm, and upon the unflinching maintenance of military discipline, the whole force of the national character tended to the production of a single definite type. Patriotism and military honor were indissolubly connected in the Roman mind. They were the two sources of national enthusiasm, the chief ingredients of the national conception of greatness. They determined irresistibly the moral theory which was to prove supreme.

"Now, war, which brings with it so many demoralizing influences, has at least always been the great school of heroism. It teaches men how to die. It familiarizes the mind with the idea of noble actions performed under the influence, not of personal interest, but of honor and of enthusiasm. It elicits in the highest degree strength of character, accustoms men to the abnegation needed for simultaneous action, compels them to repress their fears, and establish a firm control over their affections. Patriotism, too, leads them to subordinate their personal wishes to the interests of the society in which they live. It extends the horizon of life, teaching men to dwell among the great men of the past, to derive their moral strength from the study of heroic lives, to look forward continually, through the vistas of a distant future, to the welfare of an organization which will continue when they have passed away. All these influences were developed in Roman life to a degree which can now never be reproduced. War, for the reasons I have stated, was far more than at present the school of heroic virtues. Patriotism, in the absence of any strong theological passion, had assumed a transcendent power. The citizen, passing continually from political to military life, exhibited to perfection the moral effects of both. The habits of command formed by a long period of almost universal empire, and by the aristocratic organization of the city, contributed to the elevation, and also to the pride, of the national character."—Vol. i. pp. 180–185.

Mr. Lecky is a great admirer of the Stoical school. But there are two points to which, though he has touched on them, he ought to have paid more attention. Both impair his estimate of it. One was its isolation,—an isolation from the lot and conditions of human existence, which put a bar, an intentional bar, for the high and proud spirits which embraced it, between themselves and the world, between themselves and that mankind which in theory they acknowledged as their brethren: the other was the still more serious one of practical unreality and unfaithfulness in some of its leading men to their own high principles. The Stoics of the Empire, Seneca and Lucan, write very finely; but the impression prevails strongly that their lives did not correspond to their writings. Mr. Lecky has quoted largely from their works; it is to be wished that he had tried to throw more distinct light on the character of the men who wrote them; for the world suspects more than in any other analogous cases a good deal of discrepancy. But he treats very well the modifications which the grand impossibilities of pure Stoicism gradually led to. These were especially two. Its extravagant doctrines about the emotional side of human nature led to those tacit yet most momentous changes in it, which appear in Epictetus, and still more in M. Aurelius. Always inconsistently compatible with public life, it became in them capable not merely of unselfishness, but of kindliness and affection. The other is its marked return to the religious spirit, the sense of dependence and obedience due to the Supreme; which is seen in some of its earlier expressions, such as the Hymn of Cleanthes; which is dispensed with in the proud self-sufficiency of the first Roman Stoics, but which comes

back in the later ones. The course of these changes is traced fully and carefully by Mr. Lecky. But he brings out too, as distinctly, that this improvement and elevation of the Stoical ideal were totally without effect in arresting the corruption and degeneracy of the Empire. Stoicism actually went on rising, while the multitude was sinking daily into greater vileness and weakness. It was a refuge from their folly and wickedness; it did not dream of curing them, or affect to care for them.

Thus that rich and magnificent civilization of the ancient world, than which at one time of its course nothing can be conceived more promising, ended, as Mr. Lecky points out, in failure which seemed to leave no hope. The difficulties and increasing complexities of the world were too much for it; under it mankind was fast going down hill. And the failure was the more decisive from the great, and in some respect unequalled, excellence of much within it. Its virtues were heroic, and public spirit was the soul of its virtue; but society kept sinking deeper in meanness, poverty of heart, and incapable selfishness. Never was the note of duty pitched higher than by that lofty Stoicism, which was its guide and source of enthusiasm, and which tried to do without either God or immortality as supports for a goodness which sought no reward but the consciousness of truth and light; never was the philosophy of duty more faithfully and grandly realized than in the Stoic slave and Stoic emperor, who are only the flower of a number of splendid examples. But they could not save the world. Stoicism, acting on public life, produced a jurisprudence which still serves Christendom; the more supple and versatile temper of Epicureanism, along with less wholesome lessons, taught much of that humor and play of kindly irony which is so near of kin to reality of feeling and truth of thought; and Virgil and Horace, honored prophets, held the same place as lights of moral wisdom which they continued to fill in the Middle Ages and our own. But government became more anarchical and lawless in spite of Ulpian and Paulus, and society more coarse and degenerate, while it prided itself on the masterpieces of ancient culture. There is no more impressive picture to be found anywhere than that which Mr. Lecky has drawn of the impotence of the highest and noblest heathen civilization, by itself, to secure the progress of mankind. Left to itself it "visibly tended," in the uncouth but expressive scholastic language, "not to be;" *tendit visibiliter ad non esse.*

But another current set in,—from whence, Mr. Lecky prefers not to pronounce,—which changed the fortunes of the world. Though it took its rise in the historical period which is his field, he leaves the origin of Christianity on one side, contenting himself with some general remarks on miracles, and on the prevailing temper of the times in regard to them, which, though not without some acute observations, are marked with apparent hesitation and indecisiveness, and are too loose and wide to contribute much to the elucidation of the vast question, except as an additional illustration of the difficulty, as well from our habits of thought as from our actual knowledge, of judging it fairly. In spite of much elaborate discussion, Mr. Lecky appears to misunderstand and underrate greatly the place which miracles hold as links in that great chain of causes which led to the moral changes of the modern world. But the phenomena of the influence and effect of Christianity on morals are all that Mr. Lecky undertakes to investigate and portray.

The new current was, as Mr. Lecky with truth insists, a most varied, manifold, and mixed one; and the omission to recognize this as a capital and prominent truth about it constitutes the weakness of much ecclesiastical and much secular history. It is one of the most striking points connected with the history of mankind, that when Christianity appeared on the scene, no one could possibly have imagined what it bore in its bosom, what it was to do and to grow to. When we look back on it in its prime, viewed as an influence on the world, its interest arises not so much from what it was and did at the time, as from what it so strangely aimed at and dared to promise; from that of which it contained the strong and living germs, and to which it opened the door. Its early days, to common eyes, look hard, dreary, unattractive, as the world on which it was thrown.

"There is a day in Spring
When under all the earth the secret germs
Begin to stir and glow before they bud;
The wealth and festal pomps of Midsummer
Lie in the heart of that inglorious hour
Which no man names with blessing, though its work
Is blest by all the world."

Such days, in the "slow story of the growth" of man, were the early centuries of Christianity. Those who were alive in them, friends and foes, knew not the stupendous powers which had been set moving, the stupendous importance of what was passing. There is truth, though as is often the case, accompanied by inconsiderate rhetorical exaggeration, in Mr. Lecky's statement about the early Church—outwardly a sect resembling Quakers, of singular purity, singular eccentricity, and great insignificance:

"Few persons, I think, who have contemplated Christianity as it existed in the first three centuries, would have imagined it possible that it should completely supersede the pagan worship around it; that its teachers should bend the mightiest monarchs to their will, and stamp their influence on every page of legislation, and direct the whole course of civilization for a thousand years, and yet that the period in which they were so supreme should have been one of the most contemptible in history."

Mr. Lecky calls attention to three leading features in the moral action of Christianity. It enlarged greatly the scale and range of the virtues, adding to the heroic ones, which had been so nobly understood and interpreted by Stoicism, the benevolent ones, and those connected with purity; and it further affected greatly the relation, proportion, and value of the virtues among themselves. It made, or it restored, the connection of morality with religion. And it did what had been absolutely unattempted before—it sought, in its morality, contact with the multitudes, regarded their needs as its object, and tried to place virtue within the reach of their hopes and efforts. It preached the Gospel to the poor, and sought the lost, the castaway, and the forsaken.

On the other hand, loss in some things, and new false directions in others, went along with this new and vast moral advance. If the amiable virtues gained, Mr. Lecky thinks that the heroic ones suffered. If benevolence, charity, modesty—and, above all, purity—took a place in real life which went beyond all former ideals of virtue, it is no less certain, Mr. Lecky holds, that Christian civilization has been much less rich than heathen in the grand excellences of civic and political life, in the nobleness of patriotic and public virtue. In the next place, Christian morality, like heathen, had gone wrong in exaggerated and mistaken developments. Its great conquest was purity; its eternal disgrace was asceticism. Heathen morality never soared so high as that conquest, not merely by the rational, but by the spiritual over the animal nature, that cleansing and lifting up of the affections, which Christianity has not only set up as a standard, but realized so conspicuously as a social fact; but heathen morality never sunk so low as to the sanctity of the monks of the desert. Further, in the hands of Christianity, morality, animated by religion, was opened in a novel way, and on an unexampled scale, to the average crowd; it found new modes of reaching and regulating, not merely a few choice natures, but numbers who in heathen days would have been left as not worth attending to, desperate and incapable of improvement. But this great advantage was dearly purchased. When religion taught morality, and addressed the masses, the preachers of morality were priests: a new channel of despotic power was opened; and as religion must always suppose itself to be certainly and exclusively right, liberty of thought almost perished for the world as a habit of the mind, and in outward and practical things intolerance, the most brutal and blind, became the rule.

In all this there is abundant truth: the difficulty is about its amount and proportions. To prove that, as seen with our eyes, Augustine was extravagant or Athanasius overbearing, is not necessarily to do them historical justice. The general difficulty of being candid in the right place, where candor tells, and perhaps impairs the force of a statement, is often exhibited in Mr. Lecky's elaborate and learned pictures. Some of them have the intrinsic fault of being overcharged. More often they mislead, from not being placed in sufficiently distinct relation to those which balance and

qualify them. In judging an influence or a character, it makes all the difference what you make paramount and what subordinate, which the substance and which the qualification, which the governing result and which the abatement. In Mr. Lecky's view of the influence of Christianity on morals, a very important consideration appears to be, if not overlooked, at least not present with sufficient constancy. This is the inchoate and germinal character of this influence in the period which he treats. What the Christian Church attempted in elevating man and society was something without precedent, and of which the difficulty is beyond calculation. Without experience, without knowing, or having any means to know, how great principles would work, and how they had to be guarded and modified, with society going to pieces, with the multitudes at the stage at which they were in the provinces of the Empire and the hordes of the invading barbarians, the Church leaders, men of their own age, and necessarily reflecting much of its character, had to carry on their bold and eventful experiments. It is easy for us, reaping at the end of century upon century the fruit of their great attempt, and able to see how tendencies and efforts have worked out, to criticize what they thought that they had to do. Much of it was rough, harsh, immoderate, and, we see now, unwise; it partook of the nature of all beginnings; as in the beginning of knowledge, of art, of mechanism, the aim was crude and vague, and the ways of attaining it still more so. But besides that the aim in those early Christian times was distinctly and with over-ruling purpose towards higher things, and that all that early Christian literature, to our eyes so often deformed by extravagance and error, was in all its intensity a force towards moral good, there was this also: that from first to last, one thing has never failed in Christianity,—the power of self-correction, self-renovation, self-reform. The course of good and evil, of light and darkness, have swayed backwards and forwards in varying lengths of time and degrees of force: but no alternations on the bad side have ever yet succeeded in extinguishing the power so characteristic of Christianity, of trying again and again after failure, to realize its first principles in a still better form, of restoring what has decayed, of returning to the lost path. In the very darkest times of those dark ages,—about which Mr. Lecky, after all that Guizot, Palgrave, and Freeman, certainly not ecclesiastical zealots, have written, is too apt to repeat the prejudiced judgments and the summary sneers of Hume and Robertson,—the idea of continual reformation, of the duty and the obvious possibility of correcting what had gone down and gone astray, was never lost sight of. The reformations of Councils and Church rulers may often have been strange and ill-judged: but they kept alive the spirit of progress and improvement, and were real steps in that long but unceasing ascent by which European society has reached the point, far as it still is below the summits, from which we can look down, sometimes with scanty justice, on the rough hard efforts which in their place contributed to our advance.

It is the failure to give due weight to this peculiarity of Christian history which impairs the value of Mr. Lecky's survey, and makes his judgments sometimes unjust. Under it men have steadily grown; there have been pauses in the progress, but the progress has never ceased. But, of course, much that was natural or inevitable in the earlier stages is as utterly out of place in the later, and is seen, perhaps, to have been in its own time mistaken or excessive. But you cannot expect men in rude times to be in earnest or have strong convictions, and to be as tolerant or as moderate and judicious as they learn to be by the experience and miscarriages and terrible disasters of successive ages. When in our days we condemn the old asceticism, we do not always realize the frightful forces on the other side, to which at the time asceticism seemed the only practical counterpoise. When we complain of the want of free inquiry, we do not always ask ourselves what sort of free inquiry would have been possible in the days of the falling Empire, or of the barbarian conquest, or what it would have led to, not only in the region of theology, but of morals. When we are shocked at intolerance, we do not always sufficiently reflect that, in all things, the law must come before freedom, and that law is in-

tolerant in its very nature; and if time and discipline are elements of progress in the race as well as in the individual, it is idle to carry back the conditions of one age to another at a totally different stage of growth, and unjust to be severe, in the name of freedom, on what was a necessary antecedent to its healthy growth.

In the general summaries which Mr. Lecky gives on these points, and in the balance of judgment to which he attempts to come, he is, with all his fulness, hardly satisfactory. He leaves some great questions, arising out of his subject, untouched; or he deals with them in a commonplace and superficial way which is sometimes astonishing. But there is one thing in which he never fails. He keeps nothing back that comes before him. You may differ from him in your inferences or judgment. You may not always be content with the fashion in which he exhibits his details. You may think that with the facts which he produces, he ought to have remembered them when he was stating—perhaps with rhetorical point and strength—his general views, and ought to have been more guarded and measured. But if you have patience, you will almost always find in Mr. Lecky both sides of the question. There is something about the book, with all its earnestness and strength of assertion, which strikes a reader as inconclusive and indeterminate. But no book has yet attempted, as this does, to bring under one view the facts of moral progress in all their variety and complexity at the opening period of modern society, and to connect them in a comprehensive and reasonable order; and Mr. Lecky has further the great and uncommon merit—in which those who most differ from him may well learn a lesson—the merit of furnishing in his details the materials for correcting his own inferences and for qualifying his general statements. There are deeper and more powerful thinkers than Mr. Lecky; there are writers even more able than he to be fair and tolerant to what they dislike and disapprove: but there are very few so candid in showing their hand and letting their readers know the grounds of their judgments.

R. W. C.

Quarterly Review.

EARTHQUAKES.*

Far from the centres of volcanic violence, these "fortunate isles" of the West feel from time to time the throb of earth-movement vibrating from other lands, and are touched by the last undulations of the sea which, some thousands of miles away, has leaped up in terrible excitement. Now and then we are startled from repose by a swift and ominous pulse from the pained heart of Nature; but the omen is not for us. Secure from dangers so remote—

> "the hoarse resounding main,
> And walls of rock, protect our native reign."

It is true that a century ago our great-grandfathers were surprised to find London agitated, the midland counties disturbed, and one high cliff in Yorkshire throwing down its half-separated rocks. And within a few days came the disastrous explanation: a capital city lost on the Tagus, while all the Spanish peninsula was shaken, a scene of ruin among the mountains of Morocco, and mighty walls of water driven across the Atlantic to the shores of the New World. But we were safe in our strong island and our insular opinions.

True that, in searching back through the records of the past, our fathers found many marks of ancient volcanoes in our own islands, and proofs of signal earth-fractures. But this caused no alarm.

---

* 1. *On the dynamics of Earthquakes: Transactions of the Royal Irish Academy*, 1846. Vol. XXI., Part I. By Robert Mallet, F.R.S.

2. *Reports on Earthquake Phenomena, and Catalogues of Earthquakes: Transactions of the British Association*, 1850-8.

3. *The Neapolitan Earthquake of* 1857. 2 vols. Royal 8vo. 1862.

4. *On the Theories of Elevation and Earthquakes: Transactions of the British Association*, 1847. By William Hopkins, F.R.S.

5. *Cosmos.* By Baron Alexander Humboldt. Translated by General Sabine. 1848. 2nd Edition.

6. *Principles of Geology.* By Sir Charles Lyell, Bart., F.R.S. 10th Edition.

Once, no doubt, the area which now supports the British people had its Phlegræan fields, its Giant's Causeways; but that was in tertiary, or mesozoic, or even earlier times. The whole region had sunk to the long sleep of wearied nature, which had covered up and concealed the wounds inflicted by the struggles of the half-stifled Giant of Fire.

But in these later days, accustomed as we are to the thought that everywhere below the earth's outer crust of rocks there may be in action, or may be rekindled to action, an unsleeping power of disturbance, we, to whom every unusual tide and tremor is a proof of such action, can hardly presume on the enjoyment of perpetual security from the terrors which surround us. While old volcanoes revive in the Ægean, while Ætna promptly follows Vesuvius, and the Pacific Ocean, within its circle of fire, is covered by long waves which convey the awful shock from the Andes to New Zealand, and from the burning craters of Hawaii to the Rocky Mountains, we cannot avoid the dread that some point of weakness may be found in our own defences, and that the "wall of rocks" may yield which has so long guarded "our own domain."

In truth, the early chronicles and the Philosophical Transactions of the Royal Society contain not a few notices of earthquakes in England, which seem to have been alarming enough. In 974, the whole kingdom; in 1048, Worcester and Derby; in 1076, 1081, 1089, 1099, great part of England felt severe shocks.

In 1110, from Shrewsbury to Nottingham was a terrible movement, which laid dry the Trent, and kept it dry for some hours at the last-named place. In 1119, 1133, 1142, Lincoln was a sufferer; in 1158 London was afflicted, and the Thames was laid dry so as to be passed on foot. Again, in 1165, England was shaken; and in 1179 remarkably so, especially at Oxenhall, near Darlington, where the ground belonging to the Bishop of Durham was raised up to a surprising height, so as to match the hills, from 9 A.M. till sunset, when it suddenly fell again, to the consternation of the beholders, who saw a deep cavity in place of a lofty hill.* The northern parts of England were again visited in 1185; in 1186 the tremor of a Lombardian earthquake was felt; and in 1199 Somersetshire was shaken and men were thrown prostrate.

In 1246 violent shocks were experienced in different parts of England, especially in Kent, where churches were overthrown and destroyed; in 1247 London was revisited, and many edifices in the Thames Valley were overthrown, to the surprise of the philosophic monks, who did not expect under solid England the tremors which might happen in countries more cavernous beneath.* In 1248 the cathedral of Wells, and many parts of the dioceses of Bath and Wells were much damaged; in 1250 St. Albans and the "chalky" Chilterns were shaken and terrified by subterranean noises like thunder. In 1275 churches were overturned.

The years 1298, 1318, and 1382 are recorded in the earthquake annals of England; and it is remarked that a few days after the shock on land ships were greatly distressed by the violent waves of the sea. In 1385, a great earthquake was felt, and was afterwards regarded as a warning of the revolutions which followed in Scotland; a second shock followed in the same year; and in 1426 all "Great Britain" was made to tremble with the stroke.

But none of these were more remarkable than those which followed, after a long pause, in the sixteenth century. In 1551, on the 25th of May, Reigate, Croydon, and Dorking, in Surrey, were sufferers to the extent of falling pots and cooking apparatus and the upsetting of furniture. In 1571, on the 17th of February, the ground opened all at once at the "Wonder," near Putley, not far from Marcle, in Herefordshire; and a large part of the sloping surface of the hill—twenty-six acres, it is said—descended with the trees and sheepfolds, and continued in motion from Saturday to Monday, masses of ground being turned round through half a circle in their descent. This was a great landslip, said to have been occasioned by an earthquake. In 1574, on the 26th of February, between five and six in the evening, a great earthquake was felt at

* This somewhat extraordinary notice is from the Chronicle of John of Brompton.

* Matthew Paris has preserved these reflections.

York, Worcester, Hereford, Gloucester, and Bristol. Norton Chapel was filled by suppliants kneeling in prayer; they were nearly all overthrown, and fled in terror, thinking the dead were unearthed or the chapel was falling. Part of Ruthin Castle fell down, and the bell of the Town Hall at Denbigh was made to toll twice.*

In 1580, on the 6th of April, at 6 P. M., London and all England were thrown into consternation. The great bell at Westminster sounded the alarm and was followed by others; the students of the Temple started up from table and rushed into the street, knives in hand; a part of the Temple Church fell, and stones dropped from St. Paul's. Two stones fell in Christ's Church, and crushed two persons, one to an immediate, the other to a lingering death. In rushing out of the church, many persons were lamed, and there was a "shower of chimneys" in the streets. In London this severe blow lasted one minute; in the eastern parts of Kent three shocks were felt, at 6, at 9, and at 12 o'clock; at Sandwich the occurrence was strongly marked by the violence of the sea, which made ships run foul of each other. At Dover a part of the fortifications fell with the rock which supported it. Part of Saltwood Castle fell; the church bells tolled at Hythe, and the church of Sutton was injured. This earthquake passed through Belgium to Cologne. In the same year, on the 1st of May, the terrors of the people were repeated in Kent, about Ashford, at night, causing many to rise from their beds and go to the churches,—suppliants for the mercy of God. In 1583 a remarkable landslip occurred in the Vale of Blackmore, in Dorset; and in 1596 another, still more extraordinary, happened at Westerham, in Kent; but these are probably not cases of earthquake violence, for a landslip is often the effect of wet seasons and argillaceous strata.

In 1666 a real earth-shock was observed by a true philosopher, Mr. Boyle, who was then resident near Oxford. It was on the 19th of January (o. s.); not very remarkable at Oxford, or at Mr. Boyle's house on higher ground; but at Brill, still more elevated, it was violent enough to displace carriages. On Christmas Day (o. s.), 1677, again, October 9th and November 4th (o.s.), 1678, Staffordshire had its share of these movements—several shocks in different parts of the county.

In 1683 Oxfordshire was revisited by an earthquake which extended over seventy leagues; the longest direction being from south-east to north-west, the shortest from north to south. A sound like distant thunder preceded the shock, which was noticed at many stations, east, west, north, and south of Oxford, as far as Aylesbury, Watlington, Abingdon, Brampton, Burford, Long Handborough, Kirtlington, and Bletchingdon. In 1690 Bedford had its experience of a double subterranean shock, which frightened the Principal of the College and nearly upset the carriage of Dr. Beaumont.

In 1703 Yorkshire, and in particular Lincoln, Hull, and the flat region on the Humber, were considerably shaken; in 1712 Shropshire; in 1726 Dorsetshire; in 1727 Kent. In 1731, on Sunday, the 10th of October (o. s.), at 4 P. M., Aynhoe, in Northamptonshire, had its windows shaken for a full minute, and the tremor was felt four miles to the south-west, five to the west, one to the east, and one to the north, but not at all to the south. This is the only place in England which can boast of its own earthquake. In 1732, there was an earthquake in Argyllshire. In 1734, the restless force appeared in Sussex, shaking from head to foot persons who lay in bed from east to west, and turning from side to side those who lay from north to south. In 1738, there was an earthquake at Scarborough. The year 1748 was long remembered in Somersetshire on account of the shock which spread from the English Channel to the Severn, and from Exeter to Crewkerne.

In 1750, more considerable movements passed under London and great part of England, and also appeared in Picardy, Normandy, and Brittany; perhaps at the same time, but certainly within a short interval, in the Pyrenees. The first was felt through France, and along the Thames, when chimneys fell, houses were overturned, and ships in the river received severe shocks. The second was chiefly felt in London; chimneys fell, houses were damaged, most mischief

* Stow's "Chronicle."

happening in the upper parts of houses; the earth was seen to move in St. James's Park and other places; earthenware was broken in the shops, the church-bells tolled, one girl was thrown out of bed and broke her arm; lightning flashes preceded the earthquake; dogs howled, fishes leaped out of the water. The third took place on the 2nd April (o. s.), at 10 P. M., and was felt at Chester, Liverpool, and Manchester, extending 40 miles from south to north, and 70 miles from east to west. The shock lasted two or three seconds. The fourth was centred about Wimborne in Dorsetshire. The fifth extended from Lincoln to Peterborough. The last was experienced October 11th (N. S.), between 12 and 1 A. M., in the Midland Counties, from Lincoln to Northampton, and from Warwick to Bury St. Edmund's.

We need not pursue the record. The century which has passed since the great Lisbon earthquake has contributed the usual proportion of movements to England, but they are not materially different in any of their features from the examples already presented. The echoes are dying away of the last earthquake, a gentle movement compared to many others, but it was felt from the English Channel to the Mersey, and from Hereford to Leamington and Oxford. The Malvern Hill was about the centre of the area, as it has often been before.

The chronicles of British earthquakes are doubtless incomplete, but they present the appearance of much authenticity, and may be safely used in reasoning. The first thing that strikes us, on considering the facts, is the almost generally insulated character of the disturbance. Some particular shocks are acknowledged to be derived from France, but the greater number are marked by purely local effects. The area is often narrowed to the northern, or the midland, or the south-western, or the south-eastern counties of England; occasionally it occurs only in the south of Scotland, or the north of Ireland, or the northern half of Wales. In England —Lincoln, Nottingham, Northampton, Oxford, Hereford, Worcester, Exeter, Salisbury, Canterbury, and other cities and towns are marked as centres of disturbance, not seldom the circle drawn round them is quite a small one, and sometimes only a few miles round a village like Aynhoe, in Northamptonshire, little known except for its chalybeate spring. Within these areas, small as they are, the motions are usually complicated, often upward and downward, as would be the case with shocks whose origin was beneath.

In succession, however capriciously, every corner of our islands is visited; though from the northern mountains of old Caledonia, from the south-west of Ireland, South Wales, and Cornwall, the reports are few and scanty. In the central parts of England the number of earthquakes is greatest, and they appear on the whole to have a rather prevalent direction from N.N.E. to S.S.W., which is that of the escarpment of the Oolite; a prominent line of strike, due to an ancient very extensive upheaval of the old sea-bed.

Another thing is to be observed; there is one remarkable pause in the series of English earthquakes, not occurring where any noticeable imperfection of record would be expected—it is in the fifteenth century, which actually contributes only one earth-shock to the catalogue of 150 or so since the year 1000. This will appear by the following table, in which the numbers are arranged in centuries:—

Centuries.	British Earthquakes.	Local Occurrence.
10th	1	General.
11th	10	Worcester, Derby.
12th	12	Nottingham, Lincoln, Shrewsbury, London, Durham, Somerset.
13th	13	Kent, London, Bath, Wells, St. Albans, Chilterns.
14th	4	No place named.
15th	1	No place named.
16th	6	Ryegate, Herefordshire, York, Gloucester, Bristol, Ruthin, Denbigh, London, Dover, Dorset, Kent.
17th	20	Staffordshire, Oxford, Aylesbury, Abingdon, Burford, Bedford.
18th	84	General.

What makes the earthquake pause of the fifteenth century the more remarka-

ble, and the record more trustworthy, is the comparative poverty of the centuries preceding and following. And it is not a little significant to find in M. Perry's general table of European earthquakes, from A.D. 306 to A.D. 1843,* a similar though less conspicuous reduction of their number in the fifteenth century. In this same century it has been found that volcanic eruptions were less numerous in Europe than in the two centuries before and in all the subsequent period; and it is observed both in regard to Vesuvius and to Iceland, the two active volcanic systems nearest to England.†

Great earthquakes, such as live in the annals of mankind, are numerous enough to mark with an ominous shade many tracts of the earth's surface. Among the earlier notices may be signalized the formation of the Ciminian Lake, on the site of a city, and the appearance of the Alban Lake. The terrible earthquake which laid Sparta in ruins, and rolled down huge masses of stone from Taygetus, happened B.C. 464. The Japanese Lake in Oomi, 72½ miles long, and 12½ wide, is reported to have been formed in one night; and the great volcano of Fusi-Yama to have been thrown up B.C. 285. While Flaminius strove in vain by the Lake of Trasimene (B.C. 217), an earthquake of great violence overthrew Italian cities, diverted the course of rivers, and caused hills to fall. In the same year North Africa lost one hundred towns. In Asia Minor, twelve or thirteen cities fell to the ground, A.D. 17; Pompeii and Herculaneum were shattered, A.D. 63,‡ and from this time the countries touching the Mediterranean have never been free from shocks.

In A.D. 115 Antioch was the centre of a great commotion. The city was full of soldiers under Trajan; heavy thunders, excessive winds, and subterraneous noises were heard; the earth shook, the houses fell, the lamentations of people buried in the ruins passed unheard. The Emperor leaped from a window, while mountains were broken and thrown down, and rivers disappeared, and were replaced by others in new situations.

In A.D. 365 the Mediterranean region was awfully disturbed, the sea rejected, and its finny population laid dry along with ships of burden; but the returning sea overwhelmed the shores, swept away houses and people, and lodged boats of magnitude two miles inland. The sixth century appears conspicuous by the number and magnitude of earthquakes, among which was that of Antioch, 20th May, A.D. 526, when it is reported that 250,000 persons perished. Egypt came in for a violent shock in 742, and with it part of Arabia; cities overthrown, their inhabitants buried, mountains divided, the sea agitated in a terrible manner. In 746, Jerusalem and Syria; in 823, Aix-la-Chapelle and part of Germany; in 860, Persia and Syria; in 867, Mecca and Antioch felt severe movements; during the last a part of the mountain Aeraus (probably the front of the cliff) fell into the sea. In 893 an Indian earthquake is said to have caused the loss of 180,000 persons.

Coming down to later times we find, in 1530, the sea lifted up four fathoms above its wonted height, on the coast of Cumana, a fort laid in ruins, the earth opening and ejecting dark noisome liquid. In 1556, China had its turn, and the provinces of Sanxi and Santon were involved in darkness and ruin. The earth threw out fire, the waters flowed and reflowed ten times in twenty-four hours. The Calabrian earthquake, witnessed by Kircher in 1638, was very destructive, Santa Euphemia being ruined and transformed to a lake, under the eyes of the good father. In 1660, besides the burial of a mountain under a lake, which took its place, near Narbonne, a singular circumstance is narrated by Kircher: one of the hot ("boiling") springs lost its heat, and was no longer of use. In 1667, Ragusa, Dalmatia, Albania, all the Adriatic, were frightfully injured. Ragusa was ruined; the springs of water were all drained in a moment; the sea retired four times.

Whatever exaggeration may be thought to cling to these accounts derived from so many countries, it cannot be doubted that they are copied from real phenomena which were much alike in China and Cumana, in Asia Minor and Italy, in Syria and India. Everywhere violent vibrations, downsliding of hills, stoppage of rivers, formation of morasses

* "Mallet's Report on Earthquakes," 1858.

† "Phillips on Vesuvius," p. 162.

‡ This event must be distinguished from the total destruction of these cities by the famous eruption of Vesuvius in A.D. 79.

and lakes, inrushing of sea-waves: nowhere a record of elevated tracts of land.

From the vast number of phenomena recorded within the last two hundred years, during which period a large part of the globe has been explored by enterprising travellers, we may select the physical incidents in a few great earthquakes which throw light on the measure of natural force employed, and the manner in which it is exerted.

The Lisbon earthquake, as it may justly be called, extended its ravages over an area of 4000 miles in diameter. After a period of clear autumnal weather, a day of uncommon gloom closed the month of October, 1755; and the next day, calm, warm, and foggy, in the midst of universal stillness, at 9·35 A.M., the earth groaned, and shook itself quickly and shortly, and then violently, so as to fissure and upset the greatest part of the city, sink or swallow up a newly built quay, and destroy 60,000 people. The sea-bed was temporarily raised and let fall; the bar was laid dry for a time, and then covered 50 feet deep by the violently returning sea. The whole work of destruction was ended in six minutes, during which several shocks occurred, but one was pre-eminent in force. This day, November 1st, was memorable everywhere in Portugal: the ground opening with flame or smoke; St. Ubes swallowed up by the sea-waves, while rocks fell from its promontory of jasper. All Spain except the north-eastern provinces suffered in the same way; all North Africa and Madeira, England, Ireland, Scotland, Sweden, the Alps, Italy, and France felt the shock in various ways; and the sea-wave rushed across the Atlantic to the West Indian Islands.

On account of its very large range both under the land and under the sea, the records of this earthquake furnish good opportunities of ascertaining the velocity of vibrations in rock, and waves in water. The calculation was first made by Mitchell in his paper, of date 1760, in the "Philosophical Transactions." The velocity of the earth-wave was computed to be about 21 geographical miles in a minute. The same subject has been again investigated by Mr. Milne Home, who finds on the average of the whole a velocity of 13·5 geographical miles in a minute.

The Calabrian earthquakes—for there was a series of them, lasting at intervals from 1783 to 1786—are among the most important in the history of these phenomena, on account of the full and authentic report of them prepared by Signor Vivenzio, the royal physician. On the 5th of February, after a calm hazy morning, in the southern extremity of Italy, at 12·45, violent subterranean noises were heard, soon followed by a succession of earthquakes, growing stronger and stronger to a maximum, and again declining to rest, the whole occupying two minutes of time. In that short space of time, an elliptical tract of country included within diameters of 30 and 40 miles was shaken to ruin; the attack was repeated on the 6th and 7th of February, and again on the 1st and 28th of March. In 1783, no less than 949 shocks were experienced in Calabria, and in 1784 as many as 151! Sir W. Hamilton reports that in a circle of 22 miles' radius round Oppido as a centre, towns, villages, and farms were destroyed, and the face of the country was altered. If a radius of 72 miles were taken, it would include the whole area which suffered sensibly; 192 towns and villages were destroyed, and 92 greatly injured. Above 35,000 persons died from the effects of this severe visitation. The surface of the ground was in places raised, in others sunk; rivers were diverted, springs rose in new situations, often muddy or fetid; fissures opened, inequalities of level were occasioned, especially on the western sides of the mountains. Not fewer than 215 lakes or morasses were occasioned by displacements of ground, blocking up of watercourses, and the like.

Sir Charles Lyell has devoted to this earthquake one of the most interesting chapters of the "Principles of Geology." In particular he has collected and studied the examples of subsidence of particular tracts of ground and sea-coast, the formation of fissures in soft and hard rock, the occurrence of inequalities of level on two sides of such fissures, in two adjoining houses, in the substance of a split tower, and the like. Vorticose effects on incompact structures—reversals of small objects, upward leaps of others—

are all considered with attention. The original notices of fissures are very noteworthy, for magnitude and accompanying circumstances. In one case, near Jerocarne in Calabria, radiating fissures ran in every direction "like cracks on a pane of glass," and many of them remained open. In other cases, about the centre of the area convulsed, "houses were swallowed up by the yawning earth, which closed immediately over them:" farm-houses were engulphed, deep abysses opened, and lakes were formed on the broken ground. The fissures were measured, and found to be in some cases half, three quarters, and a full mile long; 2½ feet, 15 feet, and 105 feet broad; and 25 and 30 feet deep, in one case above 100 feet, and in another 225 feet deep. Gulfs, 300 feet and 750 feet square, were opened; a calcareous mountain, called Zefirio, was cleft in twain for a length of half-a-mile, and a varying breadth of many feet. Besides these, the many cases of extraordinary landslip, upbursts of water and sand, the production of circular pits, and the like, suggest the considerable effect which violent earth-shocks must occasion on the superficial features of extensive countries. In all this, however, it is difficult to prove, though easy to believe, that a real elevation or a positive rending by shock of even a small area has taken place. Mr. Mallet, on reviewing this subject, with the experience gained in a very similar region, has lately declared that the engravings and descriptions of great earth fissures and "voragines," given in the "Account of the Earthquake of 1783," by the Neapolitan Academy, are gross exaggerations; and that many of the "voragines" were really large landslips, the torn surfaces of whose planes of separation they thus name. The radiating fissures he also shows to be explicable, without any supposition of earth-upheaval.*

A great earthquake-shock was experienced in Chili through a large range of the narrow tract of land on the western side of the Andes, in the month of November, 1822:—

"The shock was felt simultaneously," says Sir C. Lyell, "throughout a space of 1200 miles from north to south. When the district around Valparaiso was examined on the morning after the shock, it was found that the whole line of coast, for above 100 miles, was raised above its former level. At Valparaiso the elevation was three feet, and at Quintero (25 miles north of Valparaiso) about 4 feet. Part of the bed of the sea, says Mrs. Graham, remained bare and dry at high water, with beds of oysters, mussels, and other shells adhering to the rocks on which they grew; the fish being all dead, and exhaling most offensive effluvia."

On the other hand, Mr. Cuming, the famous explorer of marine conchology, who was then living at Valparaiso, could detect no proofs of the rise of the land, nor any signs of a change of level. On the contrary, he remarked that the water at spring-tides rose, after the earthquake, to the same point on a wall near his house, which it had reached before the shocks. On this coast the tides are low—four feet rise at the full moon—so that in calm weather there should be no difficulty in arriving at a positive decision on this debated question. But on the other hand, wind is a powerful element of variation, and the earthquake-shocks were continued for at least a year afterwards.

The earthquake which happened in 1855, in New Zealand, about Wellington and both to the north and south of that town, had very similar characters; a great and injurious shock at Wellington, with local elevation of land there to the extent of four feet, while both to the north and the south the shock—"a swaying to and fro"—at Nelson and at Lyttelton, was productive of no change of level and was in fact harmless, except by the fright which it occasioned. One of the most remarkable phenomena was the total derangement of tide in Wellington Harbor. Every twenty minutes for eight hours succeeding the first shock, the water rose above the level of high-water mark, and receded again below low-water mark at spring-tide. There must have been successive oceanic waves from a point of disturbance in the sea, at a considerable distance.

Never, perhaps, was told a sadder tale than the story of the fearful earthquakes in Peru and Equador, by which in the year just ended twenty thousand persons lost their lives, property estimated at sixty millions was destroyed, the cities of Arequipa, Iquique, Africa, and many

* "Neapolitan Earthquake," vol. ii. p. 364.

others, were levelled with the ground, and war-ships and trading-vessels of different nations battered to pieces, or lifted by the waves and laid helpless upon the inland country. On the 13th of September we read the news, one month after the dreadful occurrence which ruined the strip of land at the western foot of the Andes, from Iburra in Equador to Iquique in Peru, twelve hundred miles in length.* And, more than this: Arequipa, far up the mountain-side, and Pasco, which surmounted a crest as high as the Jungfrau, and was surrounded by snowy summits heaped over volcanic fires, were shaken to ruin like the cities of the plain. Two minutes were enough for the fatal strokes which left a desolate waste in the place of prosperous towns; but shocks occurred as late as the 16th August, and at Quito till the 19th.

In the midst of distress and despair the descriptions are painfully true to the feeling of the moment, and very ill-fitted to meet the curiosity of science. It appears that the usual precursors were noticed; subterranean noises and slight tremors sent most of the people at once out of the houses; but immediately after the shock the sea was observed to be unusually high, having risen four feet above high-water mark, but gently, so as to do no damage. Suddenly it receded, uncovering the bay at Iquique to the depth of four fathoms; and then followed the influx of another wave, seen to approach from the open sea, a mass of dark-blue water, forty feet high, which rushed over the already ruined city, sweeping away in its return every trace of what had been a town. "No traces were left to tell the people where their houses formerly stood." † The Vice-Consul at Arica, alarmed with the first shock, rushed out of the house with his family and made for the high ground —in just terror of the expected sea-wave. Through the ruined town, amidst dead and dying, half-stifled with dust, they reached rising ground, and looked back to see a dreadful sequel—the sea rushed in, and left not a vestige remaining of the lower part of Arica. Six vessels were lost in the bay, or tossed over rocks and houses; one, the "Wanderer," U. S. gunboat, was whirled away from her moorings, and laid, a monument of watery power, without a broken spar or tarnished flag, high and dry on the sand-hills a quarter of a mile from the sea.

At Iquique one spectator saw the whole surface of the sea rise as if a mountain-side, actually standing up, and ran for his life to the Pampa. Too late! The waves swept him and all that once was Iquique towards the Pampa. Fighting with the dark water, amidst wreck and ruin of every kind, carried back into the bay, and again thrown back to the Pampa, wounded and half-naked, he crept for safety into a hole of the sand, and waited sadly for the dawn.

Inland the earth opened in all the plains around Arequipa; where Cotacachi stood is now a lake; old volcanoes burst forth. But there is no statement that this vast tremor has permanently raised or depressed any definite part of the whole coast of Peru or Equador. Nor will it be very easy to collect accurate information on this subject amidst the ruins of the coast.

The terrible wave which was seen from Arica to roll in and strike the mole to pieces, came probably from a line in the sea parallel to the coast, where the most violent subterranean disturbance happened. From this tract as a centre the agitated water flowed around in all directions: to Australia, New Zealand, the Sandwich Islands, and California, passing in its course over one-fourth of the circuit—6500 miles by measure—and covering in surface one-eighth of the area of the globe.

At Arica and Iquique the earthquake was observed on the 13th of August at 5 P.M.; the water-wave was felt at Chatham Islands on the 15th, between 1 and 2 A.M., and on the coast of New Zealand at 3 or 4 A.M.; at Sydney it occurred at 2·30 A.M.; at Hilo, in the Sandwich Islands, it was felt on the 14th, 15th, and 16th; and at San Pedro, on the Californian coast, it was remarked on the 15th. If we take for computation the times recorded at Arica and Chatham Islands (the epochs being given in hours and minutes), and correct for longitude and reckoning of the day of the month, we shall have the interval of time elapsed 15½ hours, the distance 6300 miles, and the velocity in an hour above 400 miles,

* The movement in some way was felt from 8° S. to 42° S., and at Juan Fernandez.

† Captain Powell's Report to the Admiralty, dated 14th September.

and in a minute above 6½ miles.* This velocity does not exceed the average movement of the great tide-wave in the open ocean and in deep water; the velocity of such "waves of translation" depends on the depth of water. If we had many careful notices of this kind, the mean depth of the sea might be estimated with considerable probability. The probable sea-depth over which the wave passed from Arica to New Zealand might be about four miles.

With one more example of earthquakes on a great scale connected with the grandest volcanic action known in the world, we may conclude this summary of facts, which it is for theory to explain. In March and April of last year the Sandwich Islands experienced frequent earth-shocks, and beheld amazing bursts of fire and currents of lava of prodigious extent. The whole Hawaian Archipelago has been uplifted from the ocean by volcanic agency. Coral-beds exist in Molokai 500 feet above sea-level, and drift or sand-coral in Kauai, as much as 4000 feet above the sea. The seat of volcanic activity is apparently shifting, and certainly has shifted from N.W. to S.E.—much as we may remark of the Phlegræan fields and Vesuvius—the active craters pour forth unexampled floods of lava, which run down to the sea and form promontories and fill up bays. Thus from Hua-la-lai, in 1800, ran a stream of lava which filled a bay 20 miles long, and formed a headland running three or four miles into the ocean.

The Islands are not in general subject to violent earthquakes; protected to some extent by the very volcanoes which are the centres of the shocks, and safety-valves for the lands around them. These volcanoes exhibit the largest craters anywhere known on the earth; that of Kilhauea, 6000 feet above the sea on the eastern flank of the great snow mountain of Mauna Loa (13,500 feet), is 9 miles in circumference. The country for miles round Mauna Loa is one great field of cinders. On the 27th of March Kilhauea had filled its huge crater with lava: on the 28th earthquakes began, of no particular force till the 2d of April, when houses were thrown down, and a great wave augmented the mischief. On the 7th of April a new crater opened in Mauna Roa. In many parts of Kau the ground has opened, chasms of unknown depth have been formed, whence sulphurous exhalations have issued; a fissure, some miles in length, has extended inland from the coast, and displaced, laterally, a public road by the space of its breadth. During the paroxysm of April 2 no living thing could stand. Objects were tossed about like india-rubber balls. In one district no stone was left upon another. Eruptions of moist red clay came from a fissure in Mauna in great abundance. Other fissures of great extent were visible in the volcanic ground—usually running in the direction of N. 36° E., and S. 36° W. The cloud of vapor over Kilhauea was visible 120miles off under an angle of 3° 30′, which, allowing for 500 feet altitude of observer, indicates a height of nearly eight miles. 300 earthquake shocks were registered in five days, and continued to April 10: 1500 in all! The peculiar effects of the earthquake were very well observed; like a 20-inch shot well aimed under the bed—a continual swaying of the ground—frequent rushes of subterranean sound—impossibility of standing; before a person could think, he was prostrate, with his horse. The large stone church of Waiohinu went down at once—a sudden jerk, the walls crumbled in, the roof fell flat: all the work of 10 seconds.

The portions of the earth's surface which are known to be, or to have been, disturbed by earthquakes, are so great that it is not easy to point to more than a few large spaces of land which have not been shaken—or rather where earthquakes have not been recorded. In the broad oceans many parts are left without such notices; but as few of the islands in these waters are free from shocks, it is perhaps safe to admit nearly all the vast area of the sea as liable to the disturbance. The tracts of land which seem at the present time to enjoy immunity from this disorder, are nearly all Africa, except the northern and southern

* Arica is in longitude west from Greenwich 70°, August 13 being Thursday, counting westward from Europe; Chatham Islands in longitude east of Greenwich 183°, August 15 being Saturday, counting eastward from Europe. Therefore Greenwhich time at Arica = 9 h. 40 m. P.M. 13th August, and at Chatham Islands = 1 h. 18 m. P.M. 14th August. Interval = 15 h. 38 m.—say 15½ hours.

parts; great part of Northern Russia, both in Europe and in Asia; nearly all North America above the parallel of 50°, except the western shore; Greenland; Spitzbergen; all the broad area of drainage of the Amazons, Parana, and Paraguay; and great part of Australia. If our ignorance of the physical condition of several of these tracts should be removed the "seismic" area would probably be much enlarged.

On Mr. Mallet's map, which accompanies his "Catalogue of Earthquakes" ("British Association Reports," 1857), the seismic areas are tinted, and those parts most usually and severely shaken have the deepest tint. We may draw through this map long, but interrupted, lines of greater intensity, and one or two other lines along which no such action is perceived. Thus the Pyrenees, the Apennines, the Balkan, the Caucasus, are all points of intensity on a line of mountains, interrupted by seas and broad valleys. The estuaries of the Indus and the Ganges, the coasts of Siam and eastern China, constitute another but depressed continental, or rather littoral range.

Sumatra and the Indian Isles, the Philippines, Japan, the Kurilian Isles, Kamtschatka, and the Aleutian Isles, lead on to the point of Russian America, a long tract throughout the whole course actively volcanic.

The whole range of the Mexican, Peruvian, and Chilian mountains, the grand volcanic chain of the Andes, is one continuous earthquake region, extended with less violence into California and Patagonia, but branching off into the intensely agitated area of the Caribbean Sea and Islands.

Nearly all the islands of the Atlantic from Iceland to Tristan d'Acunha, several in the Indian Ocean, and most of those in the Pacific and South Sea, are to be counted among the points visited by earthquake, and they are nearly all volcanic, or have been formerly so.

The great centres of earthquakes in Europe may be marked as actively volcanic; Hecla, Vesuvius, Ætna, Elburz. In a large sense there appear to be three great tracts of ancient and modern seismic energy and volcanic violence, the region extending from old Auvergne and the Rheinthal through Italy and Sicily, the Ægean Sea, Asia Minor, and the Caucasus—a region of min led mountains and seas and islands, from which one may imagine subterranean branches by North Ireland to Iceland, and by the Pyrenees and Lisbon to Madeira, Teneriffe, and the Azores. In parts of this region the volcanoes have come to rest, and the earthquakes have diminished.

Earthquakes precede, accompany, and follow volcanic eruptions: they are locally prevalent in volcanic regions, and they are probably often occasioned by the same agency as that which uplifts the column of lava, and scatters its separated parts in dust and scoriæ. This agency is certainly steam; but there is something else required to allow of its action in volcanoes. There must be pre-existing fissures, and c: vities in which water can be accumulated and steam generated, and communications from these to reservoirs of lava about the roots of a volcano. But it is remarkable that the centre of earthquake action does not in general coincide with the volcanic mountains to which it is adjacent; the area of earthquake movement is not usu ally expanded round Vesuvius, but springs from points somewhere under the limestone ranges of the Apennines, and spreads in circles or ellipses from thence; the most violent shocks on the Peruvian coast are found to be seated in the sea, though not very far from the shore; and, on the whole, it appears certain that fissures of considerable extent are produced under ground far away from volcanic vents. The production of such fissures would make an earthquake, and thus we arrive at the most general view which the subject admits of; first the rending and displacement of rock masses by internal unbalanced pressure, next the entry of water from the surface at some considerable depth, from which arises a primary shock, among the divided masses; the heating of the water and its flashing into steam, from which comes a secondary earthquake, and possibly in a volcanic district an eruption.

The grandest and most terrible manifestation of "Titanic" force in our planet has been very slow to surrender its secrets to the eager curiosity of science. Not that earthquakes are uncommon, for one is happening every week; or that they pass by unobserved

or unrecorded, for the literature of earthquakes is enormous; or that philosophy has been silent before the mysterious visitors, for no natural phenomena have been the subject of more free, not to say loose, speculation. The centres of Western civilization, clustered in the islands and round the shores of Greece and her colonies in Sicily, Magna Græcia, and Asia Minor, have always been, with the whole Mediterranean region, the uneasy bed of the giant of fire; and round the great volcanic vents of Ætna and Vesuvius, and the Cataceeaumene, both land and sea have been under perpetual warning to look out for the earthquake. But it comes so suddenly, passes so swiftly, and leaves marks of such doubtful meaning, that even now, with every help of advanced mechanism to record, and superior knowledge of nature to interpret the facts, we have only begun to grasp the laws, and must wait some time longer before giving to the telegraph-wire the signal of the expected arrival of the physical Ennosigaios.

The state of the knowledge of nature in different ages of the world's history is always represented in language suited to the ideas of directing power or inherent energy, contending force or settled laws of phenomena, which prevail at the time. To the terrified colonists of Inarime, whose walls were overthrown by earthquake, and themselves threatened by cloud and fire from the mountain, the traditions of their own Ætna, and the giant pressed beneath its burning load, might appear worthy of credit, when every form of natural power was personified in the struggle of earth and sky. When in the next stage of thought came the perception of fixed properties in matter, associated with distinct orders of operation, earth and air, and fire and water—rude and imperfect as the conceptions may appear to us now—were terms to which observation gradually attached larger meaning and more varied application, transforming them by degrees to general symbols, which represented properties really observed, or thought to be observed, in matter. In a few cases we perceive how the ancient myth became informed with higher meaning, as in the remarkable passage of Strabo, where this great Plutonist reads, in the words of Pindar, a grand philosophical conception of the cavernous, submarine, and subterranean realm of fire,

> "Where shaggy-breasted Typhon lay,
> From sea-girt Cuma to Trinacria's bay."

When Aristotle began to write on natural events, he was aware that the earth contained within itself sources of heat and water, of which some were withdrawn from human observation, but others had breathing apertures and channels of vapor; while in particular places —as Lipari, Ætna, and the Æolian Islands—rivers of fire flowed out, and ferruginous masses were tossed into the air (De Mundo). He knew also that in Hiera, one of the Æolian Islands, the ground was raised into a hill, with violent noise, and then broke and gave vent to fiery showers of ashes, which overwhelmed the town of Lipara, and reached the cities of Italy. To explain these facts he quotes three hypotheses, proposed by three philosophers of note—Anaxagoras of Clazomenæ, preceded by Anaximenes of Miletus, and followed by Democritus of Abdera. These philosophers he declares to be in error. Anaxagoras is not allowed to move the earth by means of ether, which has somewhere got into its hollows, and naturally tends to rise upwards; nor is Democritus successful in attempting to shake the land by means of rain descending into its cavities, and falling from one hollow to another; nor yet Anaximenes, who contemplates the earth as subject to dryings and moistenings, which produce fractures, displacements, and shocks. He then proposes his own theory—if we employ this term for a mere guess—that wind, with its unequalled power of movement, and not earth or water, is the cause we are seeking. Wind, having flowed inwardly, if it chance to be exhaled outwardly, is the cause of earthquake. What did Aristotle mean by the word "πνεῦμα"? Probably what Seneca and Virgil meant by the word "ventus," indicated by the bellowings of the interior of the earth; for, as they supposed, by no other agent could we have the effects we perceive:—

> "Sub pedibus mugire solum, et juga celsa moveri."

Pliny is of the same mind: "ventos in causa esse non dubium reor"—"incluso spiritu luctante et ad libertatem exire nitente."

And so our own poet:—

"Diseased Nature oftentimes breaks forth
In strange eruptions; and the teeming earth
Is with a kind of colic pinch'd and vex'd,
By the imprisoning of unruly wind
Within her womb; which for enlargement striving,
Shakes the old beldam earth, and topples down
Steeples and moss-grown towers."—*Hen. IV.*

Nevertheless, we are making progress —"ventus, spiritus, πνεῦμα"—the respiration of nature, a little troubled by coughing instead of the hard breathing of the Titan explains the commotion of Italy and Cilicia. Some pervading medium, received into cavities of the earth, and there exerting a great elastic force analogous to what is manifested by wind. This idea, not expressed according to our formulæ, had relieved Typhœus and dethroned the Earthshaker.

Earthquakes are now frequent in all the countries where Greece had spread her colonists. They must have been very common in the days before Aristotle, to make it possible for him to classify their different aspects and effects under general titles, and to collect the facts in a form suited for induction. By considering his efforts in these directions we shall see, better than in any other way, the state of knowledge of the period. His classes of earthquakes are six:—"Epiclintæ," which move obliquely and shake the ground at acute angles; "Brastæ," whose motion bursts upward at right angles; "Chasmatiæ" cause the ground to sink in hollows; such as make fissures and raise up the earth are called "Rhectæ," and they toss up wind-gusts, stones, and mud, or cause springs to break forth where none were before; "Ostæ" overthrow with one thrust; "Palmatiæ" shake from side to side, displacing and replacing, with a sort of tremor.

Philosophy was becoming serious in Italy, when Monte Nuovo rose out of the trembling shore near Pozzuoli, and the sea retired from the elevated land (1538). In the contemporary notice of that event by Marco Antonio Delli Falconi, we find the phenomena of volcanoes and earthquakes united as due to one general cause; and one of the first effects of eruption noticed was the ejection of mud composed of ashes, of which, indeed, according to another writer of the same date, Giacomo de Toledo, the greater part of the cone (440 feet high) was composed. The idea of a communication by subterranean channels from the sea to the base of the volcano was thus brought to view, and has since never been lost sight of.

When Stukeley wrote his Essays in the "Philosophical Transactions," London and the midland counties of England were disturbed by unusual terrors: churches lost their congregations in 1750, and a piece of the great limestone cliff of Hambleton Hill, in Yorkshire, more than 1000 feet above the sea, fell down, in 1755, and made a white scar visible at a great distance. In this year happened that great tremor of the earth which destroyed Lisbon, injured all Portugal, and terrified all Europe. To account for such wide-spread effects by puffs of imprisoned wind was too much for a man of strong though not very well trained thought; and Stukeley has at least the merit of perceiving that what was felt was really "a *tremor* of the earth,—of the surface of the earth," and to be explained as a vibration in a solid, not affecting a great depth, and on this account he thought it comparable to the phenomena then coming into notice as electric discharges.

At last began, about one hundred years ago, something like a philosophical inquiry on the phenomena of volcanoes by a competent person. The Rev. John Mitchell, of Cambridge, a distinguished magnetician and an excellent geologist, beyond the measure of that day, applied himself to the problem of the earthquake. First, he had to sweep away the notions of atmospheric influences, calms, winds, tidal phases, and lunar aspects; and then to class the phenomena according to some real relations. The relations he chose were geographical and geological, and to these he joined the consideration of undulatory and vibratory motion, and velocity of wave-transit.

The very mention of such terms shows that we have reached the era of inductive science, and may follow its steps with confidence. Mitchell was in full possession of the mechanical philosophy of his time, well acquainted with the power of steam, and perfectly aware, better than any other man in these islands, that the earth contained a real succession of strata, once deposited in the sea, but now raised into dry land. He had studied volcanoes, and knew that their eruptions were accompanied by earthquakes; but he thought these

might be often produced by other definite causes.

The crust of the earth stratified, as we have said, is known to be formed of discontinuous parts, especially in the horizontal direction, and broken by innumerable fissures, large and small. Through these—not usually in a direct, but by many indirect channels—water from the surface can pass and does pass downwards into regions where beds of rock or lava exist in a state of incandescence. There steam must be generated, expansive power goes with it, and the earth trembles and undulates to the shock; trembles through its substance by a real vibration, undulates as a yielding mass over the elastic "vapor," which, forcing its way between the strata, sets the upper parts in motion. The undulation once begun in such an elastic vapor would continue for a time in waves growing larger and larger, but also lower and lower, till they came to rest like waves in air.

Such, in few words, is the theory of Mitchell; nor did the accomplished author omit to test it by reference to sea-waves and land-shocks, having regard to direction and velocity of movement, or to examine into the probable methods of determining the depth of the "earthquake focus." This remarkable Essay furnished a basis for observations and a standpoint for speculations, of which physicists on the one hand and geologists on the other took immediate advantage. The velocities of earth-movement began to be registered, the directions of shock studied and compared, the local facts collected into systematic review; the theory might be wrong, but it suggested the methods of discovering a true one. Geology seemed to find in this kind of earthquake a cause of earth-fracture, which, if the scale could be enlarged, would produce fissures and faults, and raise and depress large tracts of the surface of the globe.

Among the latest and most conspicuous followers of Mitchell were the two eminent geologists and physicists of North America, Professors William and Henry Rogers. Familiar with the great and numerous parallel flexures of the Alleghany Mountains, and seeing on their eastern flanks abundant proofs of great heat-action at some former time and at some great depth, they formed the idea of the folding of the strata, and the uplifting of the land there by great movements depending on the undulation of a fluid below the crust. They suppose all earthquakes to consist in oscillations of the earth's crust, propagated with extreme rapidity: and they ascribe this movement to a sudden change of vertical pressure on the surface of an interior fluid mass of lava, throwing it into wave-like undulations.* What Mitchell and Rogers meant by undulation of the fluid which was believed to underlie the earth's crust will be understood by a simple experiment. Take a piece of thin flexible cloth, a few yards long and three or four feet wide, and lay it on the ground; then first holding and raising the end which is nearest, strike the cloth downward with one impulse: the air will move away from the stroke in one wave and travel under the cloth, which it raises parallel to itself till the motion comes to an end. This is a wave of motion transferred through air, under a yielding surface of restraint. If the earth's crust were very flexible and rested on a perfect fluid, a wave generated in that fluid would have a long career of motion.

But the crust is a resisting solid, and the lava below it is not a perfect fluid. If, instead of the thin, flexible cloth, one less yielding be substituted, greater force will be required and the wave will sooner come to an end. If there be very little flexibility in the surface of restraint, the wave, whatever force be used, soon becomes insensible.

The earth's crust is such a restraining body, flexible, certainly, but in a small degree, and of great thickness. Under these conditions it seems inconceivable that undulations of a subjacent vapor or liquid could become sensible over such great distances as earthquakes are known to travel. Again, lava is not such a fluid as, under any conditions of interior heat compatible with a solid earth-crust, to be capable of propagating such sharp undulations as are in question; nor is steam to be regarded as an elastic wedge fit to lift up and let down laminæ of rock some miles in thickness and hundreds of miles in extent.

(To be concluded.)

* "Reports of the British Association," 1842.

RAWLINSON'S ANCIENT MONARCHIES OF THE EAST.

THIS want of a large central population was an insuperable difficulty in the case of the Persians to the establishment of an enduring empire. In modern times nations are always strongest in defensive warfare. However weak a country may be in offensive warfare, the whole strength of the nation is called forth when the country is invaded by a hostile army. The opposition is so general, that at every stage the invading force is weakened by the necessity of guarding his communications; while the defensive force is increased, rallying in defence of the capital. And the larger the nation, the greater is the opposition which the invader has to encounter. Hence, as the nations of Europe increase in population, or aggregate themselves in great kingdoms, the greater becomes the obstacle to conquest, and hence the less temptation is there for war; so that ere long we may hope to see each nation in Europe so strong, that wars will die out, and be succeeded by a reign of peace. But the ancient Persian empire was a mere hollow shell. Its resisting power was greatest at the circumference; and if the invader defeated the forces brought against him at the frontier, he found the power of resistance decline as he advanced. Province after province submitted to the conqueror, not only with no thought of attacking his forces even in the case of subsequent defeat, but he could even strengthen his army (if he saw fit) by drawing re-enforcements from the population that had previously owned allegiance to the Great King. When the heart of the empire was approached, one-half of the military resources of the Great King had vanished; and although, like Darius at Arbela, he could still muster a formidable army from the home provinces and the eastern countries of the empire, if the fortunes of battle should again prove adverse to him all would be lost. The invader found no further opposition before him; there was no nucleus to the empire—not even a single great fortified city; and the remainder of the empire submitted to the power which had established itself in the capital. This was not the case with the Babylonian, Assyrian, and Egyptian empires, each of which had a strong central power of resistance. In fact, in regard to this central weakness, the Persian empire was without a parallel in the history of great States,—the nearest parallel to it being the Roman empire; but the empire of the Cæsars, the growth of centuries, was far more firmly knit together than the Persian, and to the last, the city of Rome itself made a stout resistance to the foe, although devoid of the vast mural defences of the Semitic capitals of Nineveh and Babylon.

But in offensive warfare the power of the Persian kings, compared with that of the rest of the world, was enormous—we may say unequalled either in ancient or modern times. The empire, when completed by the first Darius, comprised at least forty millions of inhabitants,—a population immensely surpassing that of any other contemporaneous kingdom of the world, and compared with which the population of Greece or of any other adjoining Power was but as a drop alongside of the ocean. Imperial Rome at the highest point of her power never mustered forces for offensive warfare equal in magnitude to those which the Persian Kings led into and beyond the farthest points of their far-spreading dominions. While providing the usual garrisons for all parts of his dominions, the Great King could easily muster half a million of effective combatants for the purpose of foreign conquest. Napoleon the Great, with nearly three-fourths of Europe at his back, could muster no larger force than this for the invasion of Russia. But Xerxes, when engaging in a parallel enterprise, led an army of nearly two millions of soldiers out of Asia into Greece,—connecting the continents by a highway across the Dardanelles, cutting a canal across the isthmus of Mount Athos for the convenience of his vast fleet, and in every respect making the most perfect arrangements for the advance of this immense host into the enemy's country.

Indeed, in regard to transport and commissariat—the prime requisites of success in offensive warfare—the military organization of Persia has never been surpassed in the history of the world. With all our improvements in the means

of locomotion, even with the aid of our roads and railways, no modern Power has ever exhibited the spectacle of an army of two millions, or even half that number, marched to a vast distance from the heart of the empire, with an adequate system of transport and commissariat. The Persian kings again and again, and with perfect success, marched large armies across the wide desert of Upper Asia to the shores of the Aral Sea, and to the edge of the desert of Cobi, or through the mountains of Affghanistan into India, or through Syria across the desert into Egypt, or across the Bosphorus and Danube into Russia, or lastly, on the grandest scale, across the Hellespont, down through the thinly peopled districts of the Grecian peninsula to Athens and the Isthmus of Corinth. Would it not puzzle any Power of the present day to find transport and supplies for an army of two millions engaged in such an enterprise? Doubtless, those Persian hosts did not demand food-supplies so solid and dainty as are looked for now; but at least the food must have been as great in *bulk* as now; besides, after making every allowance for the smaller food-requirements in these ruder times, our superiority in roads and railways must make it much easier to maintain large armies at a distance from the base of their operations than it was in those early times. Nevertheless no subsequent Power has ever done in this respect what was done by the Persians. We pride ourselves on the Abyssinian expedition, as the most perfectly executed enterprise of the age, although we carried only 10,000 men a distance of 400 miles. How should we feel if we had to send 100,000 men from our Indian frontier across the mountains and deserts to the Sea of Aral, or even the Caspian? Yet the Persian kings made numerous expeditions of this kind with perfect success. In truth, only once do we hear of the Persian commissariat failing—namely, in Cambyses' reckless invasion of Ethiopia. The administrative talent required to accomplish such results is truly wonderful, especially when it is remembered that the Persian expeditions were not mere flights of horse, like the Mongolian invasions, but solid enterprises carried on by armies in which the proportion of infantry to cavalry was as great as in modern European warfare.

In no empire, either of ancient or modern times, did luxury, conjoined with unchecked power on the part of the kings, produce such rapid and ruinous effects as in Persia. The conquests of the first monarchs—Cyrus, Cambyses, and Darius—laid the world at the feet of their successors. The revenue, and sometimes the plunder, of the Eastern world flowed into their exchequer; every province sent its daintiest produce to the Court; and the fairest damsels of the empire were at the pleasure of the sovereign. Nor was there any effective check upon his conduct. As already stated, the empire sprang so rapidly into its full magnitude, that there was not time for the development of any solidly organized classes or influences which could form a check upon the throne. There was no venerated priestly and learned class, as in Babylon and Egypt; no organized aristocracy, acting together as a recognized power in the State: even Law itself was too weak to be a check upon the monarch. Law and Loyalty can exist in due force only when they are surrounded and supported by the reverence which attaches to institutions of long standing—institutions which have grown with the growth of the people, and which are respected, not merely for their present usefulness or expediency, but also because of the approving verdict of past generations. All this was wanting in ancient Persia. Everything was new; and the empire fell before solid institutions of any kind could be established. In the early times of all nations, the kings themselves were the chief makers of the law, the chief organizers of society; and in the marvellous circumstances of their position, it is not to be wondered at, that the later Persian kings cared less for the establishment of law and social organization than for the indulgence of their own will and pleasure.

Cyrus and Darius were truly great men, earnest and magnanimous in their desire to rule for the welfare of their empire. And Cambyses, whose short reign intervened between those great founders of the Persian power, was too much en-

gaged in his father's policy of extending the empire to find time for much personal luxury and indulgence. But even in his case the legal and moral code of the country (if we can apply that term to mere prevalent sentiments) was violated, alike by his murder of his brother Smerdis, and by his incestuous marriage with his sister Atossa. In the reign of Darius's son and successor (Xerxes) luxury and corruption thoroughly invaded the Court, and never afterwards abandoned it. In his later years, when he relapsed into ignoble ease, after the failure of his great expedition against Greece, "he permitted himself the free indulgence of illicit passion among the princesses of the court, the wives of his own near relatives." With the establishment of a seraglio, eunuchs became part of the royal household, and made great mischief by their natural pitilessness and love of intrigue. The want of a solid political organization of recognized forces around and supporting the dynasty, and of a firmly established order of succession, led to frequent murders of his brothers by a new king, and in like manner to royal assassinations. Cambyses, as a precautionary measure, caused his brother Smerdis to be killed, and, when a usurping impostor seized his throne, he killed himself. Xerxes killed his brother and a number of his nephews, and was himself murdered by the chief of the guard and a eunuch, who held the office of royal chamberlain. Artaxerxes was attacked by his younger brother Cyrus, who fell in the battle of Cunaxa. Xerxes II. was killed, after a brief reign of forty-five days, by his half-brother Sogdianus, who in turn was killed by another half-brother—Darius Nothus. Ochus made a wholesale slaughter of his royal relatives, and was at last poisoned by his prime-minister, Bagoas; and Arses, who succeeded to the throne, was likewise murdered by the same ambitious minister.

It must be allowed that, with a few exceptions, the Persian monarchs were unfortunate in their wives and female relatives,—in great part, doubtless, owing to the bad example which they themselves set. Xerxes' wife, Amestris, was a female fiend; and the murder of the king's brother and nephews was mainly due to her, as was also the execution of Inarus in the reign of Artaxerxes, when Amestris held the potent position of queen-mother. In fact "she sported with the lives of his subjects." She was also a person of dissolute habits; and her daughter Amytis was a shameless example of incontinence. Again, the great curse of the reign of Artaxerxes II. was the queen-mother, Parysatis. "This monster of cruelty held Artaxerxes in a species of bondage during almost the whole of his long reign, and acted as if she were the real sovereign of the country. She encouraged Cyrus in his treason, and brought to most horrible ends all those who had been prominent in frustrating it. She poisoned Statira (the king's wife) out of hatred and jealousy, because she had a certain degree of influence over her husband. She encouraged Artaxerxes to contract an incestuous marriage with her daughter Atossa—a marriage which proved a fertile source of further calamities." Such a succession of royal murders and assassinations, of incest and license, cannot be paralleled in the code of any other dynasty during the same number of years; and it may be wholly traced to the influence of luxury, combined with an undeveloped political system and irresponsible power on the part of the monarch.

The Persian nation—as might be expected of a people which so rapidly achieved the conquest of the world—possessed many high excellences of character. Alike in morals, in religion, and in military qualities, they were superior to any other Asiatic nation of their time; and in religion, certainly, if not also in morals, they were superior to the Greeks—the only portion of the European population which had then attained to civilization. Judging from the sculptures which have survived the destructive agencies of time and of many desolating conquests, the physical appearance of the Persians was handsome and stately. Cyrus, the founder of the empire, and Darius Codomannus, with whose death the dynasty and empire perished, were remarkable for their personal beauty and manly vigor. The hair of the Persian chiefs is almost always represented as worn in close crispy curls; but whether this curliness was na-

tural in any case, or was simply an artificial way of dressing it, or a conventional way of representing it, is not certain. The peculiar feature of the Persian face was the straight nose, which distinguished it from the curved, semi-Jewish nose of the Assyrians. The face also was less fleshy than that of the Semitic Assyrians; and the whole appearance of the head approached more nearly to the handsome Greek type than to that of any other race. We may add that another point of resemblance between the Persians and the Greeks was the peculiar character of their pillared architecture, in which the subsequent Greek type is very noticeable.

Originally, and under the early monarchs of the empire, the national mode of living was remarkably temperate. The diet was simple, and the only beverage in daily use was water. Like most highland nations, the Persians were brave, hardy, and temperate. In later times, however, conviviality, or rather the use of intoxicating liquors, was carried to excess. The royal banquets often ended in a pretty general intoxication. Moreover, we are told that, in the case of any grave dilemma, or perhaps on every important family event, it was customary for all the members of the family to assemble at a banquet or dinner-party, and, while deciding upon the question, to get drunk. This sounds very shocking, and is really very barbarous; nevertheless, has it not had its parallel among the social usages of our country, even in recent times? Not to speak of the Irish "wake,"—the social ceremony over the dead, at which the relatives drown their grief (whether real or supposed) by drinking to excess,—the time is not remote when, both in Scotland and England, drinking to excess at dinner-parties was the fashion; for a man to be able to carry so many bottles of wine under his belt was really a claim to distinction, while the weaker vessels were stigmatized as milksops—as men who were not able to rise to the height of social civilization, and were still only fit to imbibe the simple beverage which mortals drink when first ushered into the world.

The Persian boy was taken from his mother's care at the age of six, and thereafter was trained in horsemanship (to which special attention was paid; and to the last the Persian cavalry contended on pretty equal terms with the famous Thessalian horse), in military exercises, especially the use of the bow, and was taught hardihood and familiarity with danger in the pursuits of the chase, and to undergo much hard work with little food. Literature formed no part of their training, although, doubtless, all the leading men could read and write. In religion they were taught in simple fashion the Zoroastrian creed; and, above all things, to speak the truth. Truth was so highly venerated, that the first Darius can find no worse term than "lies" for the Magian heresy introduced by the pseudo Smerdis. So simple and straightforward was the spirit of the Persians, that on principle they eschewed all the pursuits of trade; they held them in contempt, as tending to beget a spirit of chicanery and fraud —the buyer or seller naturally trying to overreach, and to put a false value on goods, with a view to their own profit. The conduct of the Persian kings, compared with that of their Assyrian predecessors, was very clement and humane. They were never harsh to the conquered, unless provoked by some acts of treason of special gravity. Conquered kings or princes were well treated; and although it was usual to put to death (by crucifixion) any traitor-chief who rose in serious rebellion,—a custom substantially in use in Europe even at the present day, —this seems to have been done mainly as a terror to evil-doers, and as the most patent means of showing to the public that the rebellion was at an end. The royal policy of Persia was, in the main, honest and magnanimous; and although, after the defeats of Xerxes, it wisely had recourse to diplomacy, to weaken the power of Greece by setting one state against another, the cases in which perfidy was employed (as during the retreat of the Ten Thousand) were exceedingly rare. Indeed, when the Egyptian king Inarus, who had risen in revolt, was put to death (through the influence of the vicious queen-mother), in violation of the royal promise, the crime was resented as so unusual and base, that the Satrap of Syria, who had taken part in giving the royal promise of mercy, actually revolted against the king for this violation of his pledge.

The religion of the ancient Persians

was in marked contrast to that of their Semitic neighbors in the Mesopotamian valley. It was a Monotheism, theirs was a Polytheism. It was spiritual and supersensual; theirs was, in the main, materialistic. The principle of Dualism in the Persian creed drew a strongly marked line between good and evil; the religion of the Babylonians and Assyrians, being based upon Nature as it is, tended to obliterate that distinction. It is a mistake to suppose that Monotheism was a natural and exclusive product of the Semitic mind. The Jews, indeed, were Monotheists from the first —Abraham brought with him that high faith when he emigrated from the banks of the lower Euphrates; and the Arabian religion of Mahomet, which was adopted by, or enforced upon, all the Semitic populations of that time (then greatly diminished in numbers) was likewise purely Monotheistic. But in the earlier civilization of the Semites, in Babylon and Nineveh, a very different creed prevailed. Nor must we too hastily scorn them on this account. It would be an error to suppose that they wilfully adopted a false religion, or that they were insensible to the religious spirit. The Assyrians, in truth, appear to have been a deeply religious people. Their kings reigned "by the grace of God," and they owned the fact much more than even Christian kings do nowadays. They gave praise to their supreme deity for all their successes in war, and they raised costly temples for themselves and their people to worship in. They were ever ready to go in sackcloth and ashes, and to fast along with their people, when an inspired stranger came amongst them proclaiming the judgments of heaven against them if they did not repent of their sins. The older Babylonian race also were very religious in their way,—although in later times (during which alone we get any glimpse of their religion) in a lesser degree than the Assyrians, owing to the Materialism which tends to predominate in all old States, especially among a commercial people. The primeval revelation had been lost, and the Babylonians (from whom the Assyrians took their religion, but in a sterner and purer form) had to grope in the dark. The religious element increased with their growth in civilization, until it attained a more predominant place in the national life—with more splendid temples and a more learned and revered hierarchy—than in any other nation except the Egyptians. But it is doubtful if the Babylonian religion did not become worse from the fruits of knowledge than when, even in its earliest stage, it was the offspring of gross ignorance. "Vice is better than ignorance," said Buckle, during the last year of his life, when visiting Egypt; and, according to this principle of judgment, he must have approved the later Babylonian worship relatively to its earlier form. "Whatever is, is right," is another modern maxim which seems to have been followed by the Babylonian priesthood, the modifiers from time to time of the national faith. In truth, the Babylonian religion showed what human development must come to, or at least tends to become, when left helpless without the aid of revelation. The Babylonians took Nature as it is. They seem, it is true, to have recognized a power—the supreme God—above Nature; but, in default of a revelation, they took Nature in all her features as the only and true indication of the Divine mind. They even subordinated or violated some of the better instincts of human nature out of deference to the phenomena of Nature as a whole. Whatever is chief in Nature, came ultimately to hold a chief place in their worship; while hardly anything (so far as we can now judge) which had a place in Nature was prohibited by their religion. In this way the line between good and evil, although, doubtless, sharply drawn in politics, and in ceremonial observances affecting the priesthood, practically disappeared in morals. A fearful error, from which the Persians remained free, as long as they maintained the Zoroastrian faith, which, while acknowledging the principle of evil in nature, exhorted all true believers to the combat of the evil principle as their best worship of the Supreme.

The ancient Semitic religion, which was gradually developed in Babylonia, in substance resembled that of Egypt, and in a lesser degree that of Greece. Many deities were worshipped; some of them apparently mortals, who came to be regarded as gods, as tradition and

superstition gradually invested them with divine attributes. Asshur, the founder of the Assyrian race or dynasty, became the chief god at Nineveh; and some of the earlier Babylonian deities (for example, the Fish-god, to whom they attributed their first knowledge of the arts) were doubtless of human origin. Nebo was apparently the god of war as well as the symbol of physical strength —Mars and Hercules in one; though whether he was merely a principle, like Mars, or a deified mortal, like Hercules, cannot now be determined. It is only just to say that the highest god, Bel, while chiefly representing the sun, was regarded also in a higher light, as the Supreme God, the creator and ruler of all. Indeed, it is probable that among the priesthood—a learned and numerous class, the depositaries of the accumulated wisdom of centuries—the ideas in regard to the Supreme Being were of a higher kind than those prevalent among the Greeks—with the exception of Plato and other isolated thinkers, some of whom, like Pythagoras, appear to have derived their higher creed from the Babylonian priesthood. But the order of deities was by no means rigidly established in Babylonia, at least as regards the public worship. The chief god was changed at times, owing to royal inclination or caprice,—some of the lower gods being raised into the first place by particular kings, who built costly temples to the special object of their worship: and the worship of the people, doubtless, followed the royal example.

But, however much the priesthood may have recognized a Supreme Being above all creation, the Babylonian religion was essentially a Nature-worship, like nearly all other unrevealed religions. Like those of Egypt and of Greece, but unlike that of Persia, the Babylonian religion was not the result of a real or even supposed revelation, but grew up by successive stages; new deities being added from time to time, and some cities specially worshipping one god of its choice in preference to the others. As usual in all natural religions, the Babylonian festivals were doubtless regulated by the phenomena of nature, and especially by the seasons, the turn of the day in winter, the budding-time, the crown of the year at midsummer and harvest. The worst feature of Babylonian worship was the adoration of the sexual principle. The sexual principle appears in nature as the grand and sole agent of creation; and creation is the most striking feature of Deity. The worship of the bull in south-western Asia and in Egypt was an embodiment of this idea,—the bull being taken as the best symbol of creative energy. The tree and the pomegranate, which figure prominently among the religious symbols of Assyria, appear likewise to have been symbols of this worship. Indeed, in some parts of Syria the phallus itself appears to have been used as a symbol of this worship, as it has been from ancient times in India. In many cases this adoration of the sexual principle in nature does not appear to have been attended with any impure rites. This was the case in Egypt; and at the present day in India, while garlands are placed on the pillar or *lingam*, no impure thoughts are connected with the worship or the idol. But in Babylonia the case was different. At first, probably,—judging by inference we may say certainly,—there were no impure rites; but by-and-by the priesthood seem to have made use of their power to indulge their passions. In truth, in the case of an irresponsible priesthood, as in that of an absolute monarch, unchecked power always leads to its abuse. The kings levied damsels to fill their seraglio; and the priesthood, under the guise of religious ceremonies, contrived to use their power in a similar way. In neither case does there appear to have been any opposition on the part of the public. In those times the luxury of the seraglio, and the chance of winning the royal favor, were regarded as sufficient attractions; and the Babylonian priesthood taught the people to regard this worship of Bel as an honorable duty. The influence of this vicious rite in course of time imbued and demoralized the sentiments of the whole people. And then the priesthood modified their system in accordance with "the spirit of the age." They established the worship of Nana, the terrestrial Venus and Cybele in one, which ere long surpassed all others in popularity. In this way, in ad-

dition to the previous rite of Bel, a daily lascivious rite was invented for the people. Every woman once in her life (apparently either before or after marriage) was bound to repair to the temple of Beltis, and there accept the embraces of whoever first claimed her by throwing a small coin into her lap. It was prostitution made part of the national religion. The condition of public feeling and opinion must have been wholly depraved, not merely in religious belief, but socially. Herodotus, it is true, says that the Babylonian women were nevertheless remarkable for chastity,—which would be incredible, even if it were not contradicted by the statements of other historians. Doubtless in this, as in some other ancient usages, which are so repulsive that they appear to us insupportable, alleviations were found for this great shame; seeing that the women could always arrange with husband, lover, or betrothed to meet and claim her. But despite all this, human nature stands aghast at such a system. It shows how the worship of Nature alone may lead to deductions in every respect destructive not merely of true religion, but of morality, and (one would think) even of society itself. Never elsewhere in the world has society thus embraced its own enemy, its opposite; marriage being indispensable to the welfare and existence of society, even if no Divine decree had been revealed enjoining its sanctity.

When such was the Babylonian religion, no words are needed to show the great gain to the world which flowed from the rise of the Persian power, and the supplanting of this corrupt civilization by the Zoroastrian faith, by far the purest in the ancient world. Strange as it may seem, considering the late period at which the Medo-Persian race appeared on the world's stage, their religion was almost as old as that of Babylon itself. They inherited it from the West Aryan stock, of which they were the latest branches. And, unlike that of Babylonia and Egypt, their creed took a full-grown shape at once. It was established by Zoroaster, apparently while the Aryans were still in Bactria. The primitive religion of the Aryans was a simple worship of the elements, such as is shown in the earlier hymns of the Vedas. But Zoroaster, a saintly recluse, saw visions, and heard a voice speaking to him in the solitude, and this voice he regarded as that of the Most High; it seemed to him a revelation from God to man. Upon this revelation was based the West Aryan religion, which the Medes and Persians carried with them in their westward migration to the plateau of Iran. Instead of taking Nature as she is, Zoroaster divided her phenomena into two opposite classes,—ascribing the good and the evil in the world to the agency of two great yet subordinate Spirits, to whom the Supreme Being delegated his powers of creation. Above all creation was the Supreme; behind all visible creation were two great Spirits, lieutenants of the Most High,—Ormuzd the Good, and Ahriman the Evil. The work of creation was carried on by those two rival Spirits, each seeking perpetually to counteract the operations and influences of the other. But Ormuzd was the Superior; he took the initiative in creating the worlds, while for Ahriman was reserved the negative part of spoiling his work as far as was permitted.

This was the way in which the hard problem of the origin of evil was solved by Zoroaster. He believed that there was an evil spirit perpetually striving to spoil the fair world created by Ormuzd; and he called upon all true believers to aid in supporting Ormuzd and baffling Ahriman. Thus the Zoroastrian faith, unlike nearly all other Pagan religions, was no indolent acceptance of what is, but a perpetual fight for the good, a ceaseless crusade against evil. It was an energetic, a militant faith; and it found apt disciples in the chivalrous and warlike race of the Medo-Persians. Indeed, the dominating spirit in that people, ambitious of conquest, may itself be traced in some degree to their religious beliefs. They regarded all the outlying world where Nature-worship prevailed as a realm of darkness, the domain of Ahriman; and conquest with them, at least under their first kings, was not merely an extension of their empire, but a triumph which they won for Ormuzd over his antagonist. Of the Supreme Being Zoroaster says little; to him the Supreme was, if not an abstraction, at least an impersonal Power, looming in the

background of all existence, rather than directly controlling its operations. And in the public worship of the Persians he had no place. Ormuzd, his vicegerent, the good creator, was the supreme (we may say the only) object of their worship; and in so far as any reverence was paid to other powers, it was to some of the good spirits who were the servants of and co-operators with Ormuzd. Ahriman was simply a negative power of whom the Persians hardly spoke; and although it seems that, in one case at least, he was made the object of propitiatory worship, he certainly figures much more prominently in the creed of Zoroaster than in the thoughts of the people. The mass of mankind never trouble themselves about recondite questions, such as the origin of evil, important as these are in the sight of the philosopher, and deeply absorbing to many earnest seekers after truth. Ormuzd was practically God to the Persians; and as such he was the object of the national worship.

We have said that the religion of the Persians was pure and spiritual, compared with that of other pagan nations; it was supersensual, in contrast with the materialism of Nature-worship. And this fact is well shown, among other things, by the emblem of Deity adopted by the Zoroastrians. In Babylon, Egypt, and other countries, the chief symbol of the Deity was the bull, the ram, or other ojects representing the principle of fecundity, of materialistic creation as it exists in mundane nature. But with the Persians the emblem of Deity was fire,—the most ethereal of the elements, the most energetic, and the most purifying. In the royal palaces, and in various parts of the country, chiefly on hill-tops, small altars were erected upon which fire was kept perpetually burning, in homage to the supreme spiritual power of the universe, and as a perpetual symbol to the people of his presence. The Persian worship was severely simple—bald and meagre compared even with our new school of Ritualistic Protestants, not to speak of the sumptuous worship of pagan Babylon and Egypt. Although Professor Rawlinson does not entirely accept the statement of Herodotus, that the Persians erected no temples and worshipped the Supreme simply beneath the vault of heaven, regarding all nature as his temple, we see no reason to doubt—and our author does not question the fact—that this was the usual and prevalent form of Persian worship. Sacrifices of animals were offered upon, or rather beside, the small fire-altars; but even sacrifices appear to have held a subordinate part in the Persian worship, which chiefly consisted in maintaining the sacred fire and chanting hymns of praise and thanksgiving to Ormuzd. And here we may add, that in the case of those sacrifices, as in that of the hecatombs of oxen and sheep mentioned in early Greek writings, as, indeed, generally among other nations, the sacrifice was not really a waste or simple destruction; only a portion of the fat was consumed on the altar,—the rest of the offering being consumed by the priesthood and the worshippers. It was a *largesse* to the priesthood, and a banquet to the relatives of the offerer or to the general public. Apart from the shedding of blood, the offering of life, which only in some cases was reckoned as the prime element of sacrifice, the procedure may be likened to the ordinary practice in the English Church of taking the alms or offertory of the congregation and laying it on the altar, before appropriating it to the purposes of religion or of charity.

In art and science the Persians did not excel,—chiefly, no doubt, from the shortness of their national life. In this respect they were far inferior to their Semitic neighbors in the Mesopotamian valley. The Babylonians, and in a lesser degree the Assyrians, excelled in all the arts and sciences known to the ancient world. Astronomy was carried to a high degree of perfection at Babylon; and the unbelief of the late Sir Cornewall Lewis on this point (as indeed on many other matters) shows only that scepticism has illusions of its own quite as marked as those which attend the opposite spirit of credulity. The Babylonians knew the orbits of the planets, they observed and studied the stars in their courses, they took note of comets, and calculated eclipses. In practical geometry and engineering skill—especially as applied to irrigation, the embanking of rivers, the cutting of canals, and the construction of reservoirs which might neutralize excessive inundations and in-

sure a steady supply of water for cultivation—they displayed powers not only higher than those of any other ancient nation save the Egyptians, but than have ever been exhibited by European nations until the present century. In the building of cities also—and probably in the organization of great urban communities—they were masters. We know little of Thebes and Memphis, and of the other ancient cities of Egypt, but they do not appear to have equalled Babylon and Nineveh, which in their buildings and in population were the greatest cities of the ancient world. Rome, at her heyday, under the Cæsars, although far surpassing those old Semitic capitals in beauty of architecture, was inferior to them both in population and in the important point of defence. Rome never possessed the enormous mural defences of Nineveh and Babylon; neither had it that peculiarity of a wide expanse of cultivated ground within the walls which rendered these elder cities almost self-supporting. It is always a difficult thing to provide food for a vast urban population. London itself would have been checked in its growth but for the invention of railways, which now daily bring it food from all quarters. This difficulty was partly met at Babylon by the broad band of cultivated land which extended all round the city within the walls, in addition to lesser open spaces interspersed among the buildings. These were doubtless enriched by the manure of the city, and cultivated to the highest point; their produce, therefore, would help to meet the daily wants of the inhabitants.

The Babylonians, and in a lesser degree the Assyrians, cultivated commerce and manufactures; and by the profit of that commerce and the export of their manufactures, they attained a supply of goods from other countries, in addition to the natural produce of the immensely fertile valley which formed their home. The arts of commerce and of manufacture were developed to a high point; both in chemical knowledge and in textile skill they appear to have been unequalled by any other people of the ancient world. In regard to their literature, we are not in a position to form an opinion. Only some documents written on their enduring clay tablets, or brief inscriptions on their palace-walls, have come down to us. But we are told that they had numerous treatises in science and philosophy; and it is more than probable that the highest opinion which can now be formed of their literature falls far below that to which it would be entitled if our knowledge of it were not derived from the mere hearsay of aliens who took little interest in the subject. It is incredible that a people who developed their civilization continuously for two thousand years, who were so illustrious in many features of their national life, and who, moreover, were essentially an urban population, and therefore with a peculiar tendency to quick wit and lively intelligence, should not have attained to some eminence in the art of literature.

The Semitic nations of the valley attained to the fullest development of their natural capacities. But it was not so with the Persians. Theirs is the history of a nation cut short in its development; and hence it is impossible to say to what eminence they might have attained in the arts of peace, if their empire had become consolidated and enduring. When Cyrus founded the empire, the Medes and Persians could not have been in a more advanced state than the Romans in the time of Numa Pompilius; and from Cyrus to the downfall of the empire at Arbela was barely two centuries; and no people (not even the Greeks) ever became great in art and science in anything like so short a period. In one respect, it is true, the Persians held an unusually favorable position. They became masters of the surrounding world almost in their infancy. The world with all its wealth was at their feet; but then this triumph was achieved only by the absorption of the whole energies of the nation in continuous war. Revolts against their power were ceaseless, and the energy of the Persians at home was weakened by the large garrisons which they had to maintain abroad. Engaged in maintaining the empire, it was natural that the Persians should profit by foreign industry and excellence in the arts rather than develop these for themselves. During the brief heyday of their power, they received the tribute of the world; but even this wealth, which, if their empire

had been consolidated, would have given them the ease and opulence so favorable to progress in the arts, was chiefly spent in armaments. They had no time to do more than hurriedly enjoy the fruits of the industrial genius of other nations, without imitating and rivalling it. They had no literature, save the royal records (the Book of Kings) and their religious hymns—which appear to have been rude compositions resembling the earlier hymns in the Indian Vedas, and doubtless songs sung or recited at banquets in honor of the king and his ancestors. The Persians were a lordly people, dominating the world by force of arms (in this resembling the Turks in modern times, only the Ottoman rule has lasted thrice as long as theirs); and their intellectual development reached a high point only in war, polity, and architecture.

We have already spoken briefly of the excellence of their military organization, and of the administrative system by which they maintained their empire. It only remains for us to say a few words as to their architecture, in so far as it can be judged after the decay of forty centuries, and the barbarous havoc made by the great Greek who overthrew their empire.

By far the grandest of those works is the cluster of palaces and other royal edifices upon the great platform at Persepolis. At the foot of a high and rocky range of hills adjoining the ruins of the ancient city, a vast platform of solid stonework projects into the now desert plain of Merdasht. From the bank of the old canal which led the fertilizing waters of the Pulwar along the outer edge of the plain, at the foot of the hills, we may view the remains of this truly regal structure. From the rocky hills behind, the platform projects nearly 300 yards into the plain, and stretches out in front to a breadth of nearly a third of a mile (upwards of 500 yards). The boundary-wall of the platform—built of vast smooth-faced blocks of stone, some of which are no less than 50 feet long by nearly 10 in breadth—rises perpendicularly from the plain. For more than half its length, this boundary-wall or front of the platform rises 45 feet above the level of the plain; and upon this central portion of the platform, a cluster of royal edifices is seen in ruins, each of which is built upon a platform of its own, rising from 10 to 14 feet above the level of the grand central platform. On either side of this central portion the platform sinks to a lower level,—the northern part being only 35 feet above the plain, and the southern about 23 feet. On the southern portion of the platform, which is by far the narrowest as well as the lowest, no edifices of any kind were built. The northern portion contained the grand staircase, by which alone there was access to the platform from the plain, and a grand gateway of approach to the cluster of palaces and state edifices which stood on the loftier central portion. The staircase leading from the plain to the platform is, even in its ruins, a magnificent structure, the noblest of its kind in the world; ten horsemen may with ease ride abreast up its broad and low steps. On the platform above are the ruins of a forest of magnificent pillars, and some gateways, the remains of the royal edifices destroyed by Alexander the Great.

Ascending the magnificent staircase, a grand gateway, with pillars and human-headed bulls, rises before us—the ancient guard-house and hall of approach to the Persian palaces. Passing through it, we see at the distance of 150 yards a double flight of steps, ten feet in height, leading up to the central portion of the platform, which on this side is entirely covered by the remains of the Chel-Minar, the pillared audience hall of Xerxes; while beyond this great edifice stand the palaces of Darius, Xerxes, and Ochus, and the mound of some central structure the original structure of which cannot now be ascertained. Of the audience hall of Xerxes, only a few pillars remain entire, but they are unequalled of their kind in the world,—being upwards of 60 feet high, fluted, and adorned with a deeper and more elaborate capital than is elsewhere to be met with. Originally this structure was a large quadrangle, formed by thirty-six lofty pillars, arranged in six rows; with, on three of its sides, ante-rooms (so to call them), each constituted by twelve pillars arranged in two rows. No wall enclosed this pillared structure, no solid roof overspread it: it appears to have been a beautiful summer-hall of audience,

surrounded in part or entirely with costly curtains, and when necessary screened overhead by rich awnings. The adjoining palaces consisted of a central pillared hall, roofed over, and surrounded with a series of apartments for the use of the king; while the seraglio, or "house for the women," formed a building by itself. One other great edifice on the platform remains to be noticed. Behind the palaces and the hall of Xerxes, at the distance of 400 feet from the plain, the platform sinks to a somewhat lower level; and in the centre of a wide expanse, between the palaces and the hills, stand the remains of the hall of 100 columns,—a State building similar in kind to the audience hall of Xerxes, and containing a much larger hall of royal reception, but with pillars of inferior height and beauty, and without any pillared ante-rooms.

This cluster of royal edifices, concentrating the architectural glory of the Persian kings, was of course the work of successive reigns, each monarch adding a palace or state edifice. Indeed it seems to us probable that the platform itself was built only by degrees. At its commencement, a spur of the rocky hills was levelled, and faced or paved with stone; possibly Cyrus or Cambyses began the work, and formed the lower back-part of the platform, building thereon the Hall of a Hundred Columns, and some early buildings of which only mere traces now exist. Darius may have completed the platform, building it out into the plain entirely of stonework, and erecting his palace on its outer edge; while Xerxes erected the noblest of the edifices upon it, perfecting the royal buildings, and leaving little to be done by any of his successors. It was the most magnificent cluster of royal buildings which has ever been erected, far surpassing in grandeur and effect even the Tuileries and the Louvre. "These great pillared halls, which constitute the glory of Aryan architecture," says Professor Rawlinson, "even in their ruins provoke the wonder and admiration of modern Europeans, familiar with all the triumphs of Western art, with Grecian temples, Roman baths and amphitheatres, Turkish mosques, and Christian cathedrals."

The Persians borrowed the idea of their palatial platforms from the Assyrians, though, instead of perishable brick, they constructed them of solid stone; they likewise borrowed the symbolic figures of the human-headed bulls which faced their royal propylæa. In all other respects their architecture was original, quite different from that of their Semitic neighbors in the adjoining valley. The grand feature of Persian architecture was the pillar. In Assyria the pillar formed no part of the external structure: pillars were simply used as internal supports to the roof, and assumed no form of grandeur. In some of the palaces of Persepolis, the pillars appear to have been only of wood, as in Assyria, although in these cases they were plated with gold or silver. But in the great audience halls, and in some other of the edifices on the Persepolitan platform, the pillars were magnificent shafts of stone, of unrivalled height and exquisite shape, rising from graceful bases into lofty fluted columns, surmounted with elaborate and picturesque capitals. The bases were bell-shaped, ornamented with a double or triple row of pendent lotus-leaves, so graceful and rare in their forms, that "they attract the admiration of all beholders." From these bell-shaped bases rise the columns, tapering gently as they ascend, and beautifully fluted along their entire length. And on the summit is an elaborate and original capital composed of three distinct parts,—first, a lotus-bud, with pendent leaves; then volutes like those of the Ionic order, but placed one above the other, instead of horizontally as in Greece; and, crowning all, two half-bulls, or half-griffins, joined at the back, with their heads projecting over the pillar.

The Persian empire was so brief that it passed away like the fabric of a dream. The very site of royal Persepolis slipped from the world's memory more completely than that of ruined Nineveh or buried Pompeii. Chardin, when travelling in Persia two centuries ago, was astonished by the sight of a group of magnificent pillars (the remains of the Chel-Minar) rising in the solitude on the edge of the sandy desert plain of Merdasht; and the only account of them he could get from the wandering tribes of the neighborhood was that they were "the work of the genii." Thus the grandest and special feature of Persian

architecture was also that which survived the longest. It was its noble pillars that led to the discovery of lost Persepolis; and to this day, by their beauty and magnificence, these solitary columns show to the world how barbarous was the sudden frenzy of the Greek conqueror who consigned to the flames the truly regal edifices of which these pillars are now almost the sole remains.

St. Paul's.

THE SECRET OF THE NORTH POLE.

If an astronomer upon some distant planet has ever thought the tiny orb we inhabit worthy of telescopic study, there can be little doubt that the snowy regions which surround the arctic and antarctic poles must have attracted a large share of his attention. Waxing and waning with the passing seasons, those two white patches afford significant intelligence respecting the circumstances of our planet's constitution. They mark the direction of the imaginary axial line upon which the planet rotates; so that we can imagine how an astronomer on Mars or Venus would judge from their position how it fares with terrestrial creatures. There may, indeed, be Martial Whewells who laugh to scorn the notion that a globe so inconveniently circumstanced as ours can be inhabited, and are ready to show that if there were living beings here they must be quickly destroyed by excessive heat. On the other hand, there are doubtless sceptics on Venus also who smile at the vanity of those who can conceive a frozen world, such as this outer planet must be, to be inhabited by any sort of living creature. But we doubt not that the more advanced thinkers both in Mars and Venus are ready to admit that, though we must necessarily be far inferior beings to themselves, we yet manage to "live and move and have our being" on this ill-conditioned globe of ours. And these, observing the earth's polar snow-caps, must be led to several important conclusions respecting physical relations here.

It is, indeed, rather a singular fact to contemplate that ex-terrestrial observers, such as these, may know much more than we ourselves do respecting those mysterious regions which lie close around the two poles. Their eyes may have rested on spots which all our endeavors have failed in enabling us to reach. Whether, as some have thought, the arctic pole is in summer surrounded by a wide and tide-swayed ocean; whether there lies around the antarctic pole a wide continent, bespread with volcanic mountains larger and more energetic than the two burning cones which Ross found on the outskirts of this desolate region; or whether the habitudes prevailing near either pole are wholly different from those suggested by geographers and voyagers,—such questions as these might possibly be resolved at once, could our astronomers take their stand on some neighboring planet, and direct the searching power of their telescopes upon this terrestrial orb. For this is one of those cases referred to by Humboldt, when he said that there are circumstances under which man is able to learn more respecting objects millions of miles away from him than respecting the very globe which he inhabits.

If we take a terrestrial globe, and examine the actual region near the North Pole which has as yet remained unvisited by man, it will be found to be far smaller than most people are in the habit of imagining. In nearly all maps the requirements of charting result in a considerable exaggeration of the polar regions. This is the case in the ordinary "maps of the two hemispheres" which are to be found in all atlases. And it is, of course, the case to a much more remarkable extent in what is termed Mercator's projection. In a Mercator's chart we see Greenland, for example, exaggerated into a continent fully as large as South America, or to seven or eight times its real dimensions.

There are three principal directions in which explorers have attempted to approach the North Pole. The first is that by way of the sea which lies between Greenland and Spitzbergen. We include under this head Sir Edward Parry's attempt to reach the pole by crossing the ice-fields which lie to the north of Spitzbergen. The second is that by way of

the straits which lie to the west of Greenland. The third is that pursued by Russian explorers who have attempted to cross the frozen seas which surround the northern shores of Siberia.

In considering the limits of the unknown north-polar regions, we shall also have to take into account the voyages which have been made around the northern shores of the American continent in the search for a "north-western passage." The explorers who set out upon this search found themselves gradually forced to seek higher and higher latitudes if they would find a way round the complicated barriers presented by the ice-bound straits and islands which lie to the north of the American continent. And it may be noticed in passing, as a remarkable and unforeseen circumstance, that the further north the voyagers went the less severe was the cold they had to encounter. We shall see that this circumstance has an important bearing on the considerations we shall presently have to deal with.

One other circumstance respecting the search for the north-west passage, though not connected very closely with our subject, is so singular and so little known that we feel tempted to make mention of it at this point. The notion with which the seekers after a north-west passage set out was simply this, that the easiest way of reaching China and the East Indies was to pursue a course resembling as nearly as possible that on which Columbus had set out,—if only it should appear that no impassable barriers rendered such a course impracticable. They quickly found that the American continents present an unbroken line of land from high northern latitudes far away towards the antarctic seas. But it is a circumstance worth noticing, that if the American continents had no existence, the direct westerly course pursued by Columbus was not only not the nearest way to the East Indian Archipelago, but was one of the longest routes which could have possibly been selected. Surprising as it may seem at first sight, a voyager from Spain for China and the East Indies ought, if he sought the absolutely shortest path, to set out on an almost direct northerly route! He would pass close by Ireland and Iceland, and so, near the North Pole, and onwards into the Pacific. This is what is called the great circle-route, and if it were only a practicable one, would shorten the course to China by many hundreds of miles.

Let us return, however, to the consideration of the information which arctic voyagers have brought us concerning the north polar regions.

The most laborious researches in arctic seas are those which have been carried out by the searchers after a north-west passage. We will therefore first consider the limits of the unknown region in this direction. Afterwards we can examine the results of those voyages which have been undertaken with the express purpose of reaching the North Pole along the three principal routes already mentioned.

If we examine a map of North America constructed in recent times, we shall find that between Greenland and Canada an immense extent of coast-line has been charted. A vast archipelago covers this part of the northern world. Or if the strangely complicated coast-lines which have been laid down really belong to but a small number of islands, the figures of these must be of the most fantastic kind. Towards the north-west, however, we find several islands whose outlines have been entirely ascertained. Thus we have in succession North Devon Island, Cornwallis Island, Melville Island, and Port Patrick Island, all lying north of the seventy-fifth parallel of latitude. But we are not to suppose that these islands limit the extent of our seamen's researches in this direction. Far to the northward of Wellington Channel, Captain de Haven saw, in 1852, the signs of an open sea, —in other words, he saw, beyond the ice-fields, what arctic seamen call a "water-sky." In 1855 Captain Penny sailed upon this open sea; but how far it extends towards the North Pole has not yet been ascertained.

It must not be forgotten that the north-west passage has been shown to be a reality, by means of voyages from the Pacific as well as from the Altantic. No arctic voyager has yet succeeded in passing from one ocean to the other. Nor is it likely now that any voyager will pursue his way along a path so beset by dangers as that which is called the north-west passage. Long before the problem had been solved, it had become well

known that no profit could be expected to accrue to trade from the discovery of a passage along the perilous straits and the ice-encumbered seas which lie to the north of the American continent. But Sir Edward Parry having traced out a passage as far as Melville Island, it seemed to the bold spirit of our arctic explorers that it might be possible, by sailing through Behring's Straits, to trace out a connection between the arctic seas on that side and the regions reached by Parry. Accordingly M'Clure, in 1850, sailed in the "Investigator," and passing eastward, after traversing Behring's Straits, reached Baring's Land, and eventually identified this land as a portion of Banks's Land, seen by Parry to the southward of Melville Island.

It will thus be seen that the unexplored parts of the arctic regions are limited in this direction by sufficiently high latitudes.

Turn we next to the explorations which Russian voyagers have made to the northward of Siberia. It must be noticed, in the first place, that the coast of Siberia runs much farther northward than that of the American continent. So that on this side, independently of sea explorations, the unknown arctic regions are limited within very high latitudes. But attempts have been made to push much further north from these shores. In every case, however, the voyagers have found that the ice-fields, over which they hoped to make their way, have become gradually less and less firm, until at length no doubt could remain that there lay an open sea beyond them. How far that sea may extend is a part of the secret of the North Pole; but we may assume that it is no narrow sea, since otherwise there can be little doubt that the ice-fields which surround the shores of northern Siberia would extend unbroken to the further shores of what we should thus have to recognize as a strait. The thinning-off of these ice-fields, observed by Baron Wrangle and his companions, affords, indeed, most remarkable and significant testimony respecting the nature of the sea which lies beyond. This we shall presently have to exhibit more at length; in the meantime we need only remark that scarcely any doubt can exist that the sea thus discovered extends northward to at least the eightieth parallel of latitude.

We may say, then, that from Wellington Channel northward of the American continent, right round towards the west, up to the neighborhood of Spitzbergen, very little doubt exists as to the general characteristics of arctic regions, save only as respects those unexplored parts which lie within ten or twelve degrees of the North Pole. The reader will see presently why we are so careful to exhibit the limited extent of the unexplored arctic regions in this direction. The guess we shall form as to the true nature of the north-polar secret will depend almost entirely on this consideration.

We turn now to those two paths along which arctic exploration, properly so termed, has been most successfully pursued.

It is chiefly to the expeditions of Drs. Kane and Hayes that we owe the important knowledge we have respecting the northerly portions of the straits which lie to the west of Greenland. Each of these explorers succeeded in reaching the shores of an open sea lying to the north-east of Kennedy Channel, the extreme northerly limit of those straits. Hayes, who had accompanied Kane in the voyage of 1854-5, succeeded in reaching a somewhat higher latitude in sledges drawn by Esquimaux dogs. But both expeditions agree in showing that the shores of Greenland trend off suddenly towards the east at a point within some nine degrees of the North Pole. On the other hand, the prolongation of the opposite shore of Kennedy Channel was found to extend northwards as far as the eye could reach. Within the angle thus formed there was an open sea "rolling," says Captain Maury, "with the swell of a boundless ocean."

But a circumstance was noticed respecting this sea which was very significant. The tides ebbed and flowed in it. Only one fact we know of,—a fact to be presently discussed,—throws so much light on the question we are considering as this circumstance does. Let us consider a little whence these tidal waves can have come.

The narrow straits between Greenland on the one side, and Ellesmere Land and Grinnell Land on the other, are

completely ice-bound. We cannot suppose that the tidal wave could have found its way beneath such a barrier as this. "I apprehend," says Captain Maury, "that the tidal wave from the Atlantic can no more pass under this icy barrier to be propagated in the seas beyond, than the vibrations of a musical string can pass with its notes a fret on which the musician has placed his finger."

Are we to suppose, then, that the tidal waves were formed in the very sea in which they were seen by Kane and Hayes? This is Captain Maury's opinion:—"These tides," says he, "must have been born in that cold sea, having their cradle about the North Pole." But no one who has studied the theory of the tides can accept this opinion for a moment. Every consideration on which that theory is founded is opposed to the assumption that the moon could by any possibility raise tides in an arctic basin of limited extent.

It would be out of place to examine at length the principle on which the formation of tides depends. It will be sufficient for our purposes to remark that it is not to the mere strength of the moon's "pull" upon the waters of any ocean that the tidal wave owes its origin, but to the difference of the forces by which the various parts of that ocean are attracted. The whole of an ocean cannot be raised at once by the moon, but if one part is attracted more than another a wave is formed. That this may happen the ocean must be one of wide extent. In the vast seas which surround the Southern Pole there is room for an immensely powerful "drag," so to speak; for always there will be one part of these seas much nearer to the moon than the rest, and so there will be an appreciable difference of pull upon that part.

The reader will now see why we have been so careful to ascertain the limits of the supposed north-polar ocean, in which, according to Captain Maury, tidal waves are generated. To accord with his views this ocean must be surrounded on all sides by impassable barriers either of land or ice. These barriers, then, must lie to the northward of the regions yet explored, for there is open sea communicating with the Pacific all round the north of Asia and America. It only requires a moment's inspection of a terrestrial globle to see how small a space is thus left for Captain Maury's land-locked ocean. We have purposely left out of consideration, as yet, the advances made by arctic voyagers in the direction of the sea which lies between Greenland and Spitzbergen. We shall presently see that on this side the imaginary land-locked ocean must be more limited than towards the shores of Asia or America. As it is, however, it remains clear that if there were any ocean communicating with the spot reached by Dr. Kane, but separated from all communication,—by open water,—either with the Atlantic or with the Pacific, that ocean would be so limited in extent that the moon's attraction could exert no more effective influence upon its waters than upon the waters of the Mediterranean,—where, as we know, no tides are generated. This, then, would be a tideless ocean, and we must look elsewhere for an explanation of the tidal waves seen by Dr. Kane.

We thus seem to have primâ facie evidence that the sea reached by Kane communicates either with the Pacific or with the Atlantic, or—which is the most probable view—with both those oceans. When we consider the voyages which have been made towards the North Pole along the northerly prolongation of the Atlantic Ocean, we find very strong evidence in favor of the view that there is open-water communication in this direction, not only with the spot reached by Kane, but with a region very much nearer to the North Pole.

So far back as 1607 Hudson had penetrated within eight and a half degrees (or about 600 miles) of the North Pole on this route. When we consider the clumsy build and the poor sailing qualities of the ships of Hudson's day, we cannot but feel that so successful a journey marks this route as one of the most promising ever tried. Hudson was not turned back by impassable barriers of land or ice, but by the serious dangers to which the floating masses of ice and the gradually thickening ice-fields exposed his weak and ill-manned vessel. Since his time, others have sailed upon the same track, and hitherto with no better success. It has been reserved to the Swedish expedition of last year to gain the highest latitudes ever reached in a

ship in this direction. The steamship "Sofia," in which this successful voyage was made, was strongly built of Swedish iron, and originally intended for winter voyages in the Baltic. Owing to a number of delays, it was not until September 16th that the "Sofia" reached the most northerly part of her journey. This was a point some fifteen miles nearer the North Pole than Hudson had reached. To the north there still lay broken ice, but packed so thickly that not even a boat could pass through it. So late in the season it would have been unsafe to wait for a change of weather, and a consequent breaking up of the ice. Already the temperature had sunk sixteen degrees below the freezing point; and the enterprising voyagers had no choice but to return. They made, indeed, another push for the north a fortnight later, but only to meet with a fresh repulse. An ice-block with which they came into collision opened a large leak in the vessel's side; and when after great exertions they reached the land, the water already stood two feet over the cabin floor. In the course of these attempts the depths of the Atlantic were sounded; and two interesting facts were revealed. The first was that the Island of Spitzbergen is connected with Scandinavia by a submarine bank; the second was the circumstance that to the north and west of Spitzbergen the Atlantic is more than two miles deep!

We come now to the most conclusive evidence yet afforded of the extension of the Atlantic Ocean towards the immediate neighborhood of the North Pole. Singularly enough this evidence is associated not with a sea-voyage, nor with a voyage across ice to the borders of some northern sea, but with a journey during which the voyagers were throughout surrounded as far as the eye could reach by apparently fixed ice-fields.

In 1827 Sir Edward Parry was commissioned by the English Government to attempt to reach the North Pole. A large reward was promised in case he succeeded, or even if he could get within five degrees of the North Pole. The plan which he adopted seemed promising. Starting from a port in Spitzbergen, he proposed to travel as far northward as possible in sea-boats, and then, landing upon the ice, to prosecute his voyage by means of sledges. Few narratives of arctic travel are more interesting than that which Parry has left of this famous "boat-and-sledge" expedition. The voyagers were terribly harassed by the difficulties of the way; and, after a time, that most trying of all arctic experiences, the bitterly cold wind which comes from out the dreadful north, was added to their trials. Yet still they plodded steadily onwards, tracking their way over hundreds of miles of ice with the confident expectation of at least attaining to the eighty-fifth parallel, if not to the pole itself.

But a most grievous disappointment was in store for them. Parry began to notice that the astronomical observation by which in favorable weather he estimated the amount of their northerly progress, showed a want of correspondence with the actual rate at which they were travelling. At first he could hardly believe that there was not some mistake; but at length the unpleasing conviction was forced upon him that the whole ice-field over which he and his companions had been toiling so painfully was setting steadily southwards before the wind. Each day the extent of this set became greater and greater, until at length they were actually carried as fast towards the south as they could travel northward.

Parry deemed it useless to continue the struggle. There were certainly two chances in his favor. It was possible that the north wind might cease to blow, and it was also possible that the limit of the ice might soon be reached, and that upon the open sea beyond his boats might travel easily northward. But he had to consider the exhausted state of his men, and the great additional danger to which they were subjected by the movable nature of the ice-fields. If the ice should break up, or if heavy and long-continued southerly winds should blow, they might have found it very difficult to regain their port of refuge in Spitzbergen before winter set in, or their stores were exhausted. Besides, there were no signs of water in the direction they had been taking. The water-sky of arctic regions can be recognized by the experienced seamen long before the open sea itself is visible. On every side, however, there were the signs of widely-extended ice-fields. It seemed, therefore, hopeless to persevere, and

Parry decided on returning with all possible speed to the haven of refuge prepared for the party in Spitzbergen. He had succeeded in reaching the highest northern latitudes ever yet attained by man.

The most remarkable feature of this expedition, however, is not the high latitude which the party attained, but the strange circumstance which led to their discomfiture. What opinion are we to form of an ocean at once wide and deep enough to float an ice-field which must have been thirty or forty thousand square miles in extent? Parry had travelled upwards of three hundred miles across the field, and we may fairly suppose that he might have travelled forty or fifty miles farther without reaching open water; also that the field extended fully fifty miles on each side of Parry's northerly track. That the whole of so enormous a field should have floated freely before the arctic winds is indeed an astonishing circumstance. On every side of this floating ice-island there must have been seas comparatively free from ice; and could a stout ship have forced its way through these seas, the latitudes to which it could have reached would have been far higher than those to which Parry's party was able to attain. For a moment's consideration will show that the part of the great ice-field where Parry was compelled to turn back must have been floating in far higher latitudes when he first set out. He reckoned that he had lost more than a hundred miles through the southerly motion of the ice-field, and by just this amount, of course, the point he reached had been nearer the pole. It is not assuming too much to say that a ship which could have forced its way round the great floating ice-field would certainly have been able to get within four degrees of the pole. It seems to us highly probable that she would even have been able to sail upon open water to and beyond the pole itself.

And when we remember the direction in which Dr. Kane saw an open sea,—namely, towards the very region where Parry's ice-ship had floated a quarter of a century before,—it seems reasonable to conclude that there is open-water communication between the seas which lie to the north of Spitzbergen and those which lave the north-western shores of Greenland. If this be so, we at once obtain an explanation of the tidal waves which Kane watched day after day in 1855. These had no doubt swept along the valley of the Atlantic, and thence around the northern coast of Greenland. It follows that densely as the ice may be packed at times in the seas by which Hudson, Scoresby, and other captains have attempted to reach the North Pole, the frozen masses must in reality be floating freely, and there must therefore exist channels through which an adventurous seaman might manage to penetrate the dangerous barriers surrounding the polar ocean.

In such an expedition chance unfortunately plays a large part. Whalers tell us that there is great uncertainty as to the winds which may blow during an arctic summer. The icebergs may be crowded by easterly winds upon the shores of Greenland, or by westerly winds upon the shores of Spitzbergen, or lastly, the central passage may be the most encumbered, through the effects of winds blowing now from the east and now from the west. Thus the arctic voyager has not merely to take his chance as to the route along which he shall adventure northwards, but often, after forcing his way successfully for a considerable distance, he finds the ice-fields suddenly closing in upon him on every side, and threatening to crush his ship into fragments. The irresistible power with which, under such circumstances, the masses of ice bear down upon the stoutest ship has been evidenced again and again; though, fortunately, it not unfrequently happens that some irregularity along one side or the other of the closing channel serves as a sort of natural dock, within which the vessel may remain in comparative safety until a change of wind sets her free. Instances have been known in which a ship has had so narrow an escape in this way, and has been subjected to such an enormous pressure, that when the channel has opened out again, the impress of the ship's side has been seen distinctly marked upon the massive blocks of ice which have pressed against her.

Notwithstanding the dangers and difficulties of the attempt, and the circumstance that no material gains can reward the explorer, it seems not unlikely that

before many months are passed the North Pole will have been reached. Last year two bold attempts were made, one by the Swedes, as already mentioned, the other by German men of science. In each case the result was so far successful as to give good promise for future attempts. This year both these nations will renew their attack upon the interesting problem. The German expedition* will consist of two vessels, the "Germania" and the "Greenland." The former is a screw-steamer of 126 tons, and well adapted to encounter the buffets of the ice-masses which are borne upon the arctic seas. The other is a sailing yacht of 80 tons, and is intended to act as a transport-ship by means of which communication may be kept up with Europe. The "Germania" will probably winter in high northern latitudes; and we should not be much surprised if before her return she should have been carried to the very pole. Nor can the prospects of the Swedish expedition be considered less promising, when we remember that last year, though hampered by the lateness of the season and other difficulties, they succeeded in approaching the pole within a distance only a few miles greater than that which separated Parry from the pole in 1829.

Certainly England has reason to fear that before the year 1870 has closed she will no longer be able to claim that her flag has approached both poles more nearly than the flag of any other nation. There are considerations which make the recent supineness of our country in the matter of arctic travel much to be regretted. In the winter of 1874 there will occur one of those interesting phenomena by which Nature occasionally teaches men useful lessons respecting her economy. We refer to the transit of Venus on December 8th in that year. One of the most effective modes of observing this transit will require that a party of scientific men should penetrate far within the recesses of the desolate antarctic circle. Where are the trained arctic seamen to be found who will venture upon this service? Most of our noted arctic voyagers have earned their rest; and as Commander Davis said at a recent meeting of the Geographical Society, those who go for the first time into the arctic or antarctic solitudes are too much tried by the effects of the new experience to be fit to undertake important scientific labors. He spoke with special reference to the transit of 1882, before the occurrence of which there is fully time to train a new school of arctic voyagers. It is just possible that for the transit of 1874 trained explorers belonging to the old school of arctic travel may still be found. But if not, no time should be lost in supplying the deficiency. It has only been discovered within the last few months that journeys to the antarctic will be required as much for this transit as for the other. The Astronomer Royal has expressed his desire that the discovery may be rendered available by suitable expeditions. "Every series of observations," he remarks, "which can really be brought to bear upon this important determination will be valuable." Therefore, for this reason alone, and even if the reputation of England in the matter of arctic travel were altogether worthless, it would be well that efforts should quickly be made to prepare crews and commanders for the work of 1874, by "sending them to school," as Commander Davis expressed it, "in the arctic seas."

Colburn.

OPENING OF THE ALBERT N'YANZA.

Great extent of the Lake—Possible communications between the Albert N'yanza and Lake Tanganyika—Origin of the Nile—Existence of several outlets to the Albert N'yanza—The White Nile—The Jur, a tributary to the Gazelle Lake—The Bahr Bura, a tributary to Matuassat a great Central African Lake—Outlets of the great lake of Central Africa—The Shary and Lake Tsad—The Binuwa, or Eastern Niger—The Zaire, or Congo—An Egyptian and Ethiopic Nile—The Slave Trade.

It is understood that, influenced no doubt to some extent by the visit of the Prince of Wales, and anxious to do something which shall confirm him in the good opinion of Western nations, the Viceroy of Egypt has invited Sir Samuel Baker to take command of an expedition directed to the suppression of the slave trade on the Upper Nile,

[* The German expedition sailed on June 15th. —Ed. Eclectic.]

to explore fully and in detail the vast interior reservoir known as the Albert N'yanza, and to bring the hitherto untraversed districts lying around the mysterious head-waters of the great river of Egypt within the sphere not only of the viceroy's authority, but also of mercantile operations.

The results of such an expedition are so full of promise to our knowledge of the face of the globe we dwell upon, in its least known and most inaccessible regions, and to the cause of a down-trodden and slave-driven people, that it is impossible not to be stirred up to our innermost heart at the bare idea of such a truly glorious and noble enterprise. It may be termed by some to be a war of annexation, and it may be said that Egypto-Turks, of a faith which tolerates slavery in certain forms, are not precisely the people to occupy Central Africa; but nothing could be worse than the state of the countries which it is proposed to open to civilization; there was no other power that could or would do it, and the boon conveyed to the people themselves is of such vast magnitude as not only to exonerate the means that may have to be used, but to stamp them with the unquestionable seal of a truly philanthropic and humanitarian morality. No man, too, more fitted than Sir Samuel Baker to take the lead of such an expedition, and no man more likely to carry it out with the least fighting and quarrelling that is possible. True courage is always magnanimous, and Sir Samuel Baker has shown by the patient perseverance and self-devotion of himself and wife in carrying out a great purpose, that he possesses what is rarer and loftier than mere physical courage—the attributes of the highest intellectual and moral courage—that kind of courage which is sure to blend mercy with strength, and to be at all times conciliating whilst carrying out its objects.

It will be remembered that Sir Samuel Baker was led, when exploring the regions of the Upper Nile, to the discovery of the Albert N'yanza from information he received at Gondokoro from Captain Speke. That lamented traveller had, upon the occasion of his exploration of the Victoria N'yanza, heard of the existence of another lake to the west or north-west, which he at the time supposed to be much smaller than his Victoria N'yanza, and which was also supposed to receive the waters of the outlet of the upper lake—the Somerset or Victoria Nile, as it has been called. After overcoming many wearisome obstacles (and who can read his narrative without a thrill of admiration for the constant cheerfulness with which the hero and heroine bore the terrible hardships they were called to face, the daily danger and hourly anxieties of their lonely life in Equatorial Africa, and the sickness and other disheartening trials which they were called upon to endure?), Sir Samuel succeeded in reaching the lake in question. It lay before him like a sea of quicksilver, with a boundless sea horizon on the south and south-west glittering in the noon-day sun, and on the west, at fifty or sixty miles' distance, blue mountains rose from the bosom of the lake to a height of about seven thousand feet above its level. "I was about fifteen hundred feet above the lake," the traveller relates, "and I looked down from the steep granite cliff upon those welcome waters—upon that vast reservoir which nourished Egypt and brought fertility where all was wilderness—upon that great source so long hidden from mankind; that source of bounty and of blessings to millions of human beings; and as one of the greatest objects in nature, I determined to honor it with a great name. As an imperishable memorial of one loved and mourned by our gracious Queen, and deplored by every Englishman, I called this great lake 'the Albert N'yanza.' The Victoria and the Albert lakes are the two sources of the Nile."

At sunrise on the following morning Sir Samuel was enabled to distinguish, with the aid of a powerful telescope, the outline of the mountains on the opposite shore, dark shades upon their sides denoting deep gorges, whilst two large waterfalls that cleft the sides of the mountains looked like threads of silver upon their dark face. The lake itself was a vast depression far below the general level of the country, surrounded by precipitous cliffs, and bounded on the west and south-west by great ranges of mountains from five to seven thousand feet above the level of its waters, thus

rendering it the one great reservoir into which everything must drain, and "from this vast rocky cistern *the Nile made its exit, a giant in its birth.*" "It was," adds Sir Samuel, "a grand arrangement of Nature for the birth of so mighty and important a stream as the river Nile."

Unfortunately, at the period of Sir Samuel Baker's discovery of the Albert N'yanza, there had been some difference of opinion among geographers as to whether the Victoria Nile flowed directly onwards from Victoria N'yanza into the White Nile by Gondokoro, or whether its waters mingled with those of Albert N'yanza before joining the White Nile. Instead, then, of Sir Samuel and his wife, as to all appearance they might have done, keeping, after their long fatigues, quietly in a boat, and allowing themselves to be peacefully rowed and drifted down the Nile, which is described, as we have seen, as "a giant in its birth," they navigated the lake in canoes to Magungo, the point at which the Victoria Nile joined the lake, and, what was worse, in order to settle a question of no very great importance, as to the lake-feeder at Magungo being really the prolongation of the Victoria Nile, they proceeded up that river, which is a succession of cataracts the whole way to the Karuma Falls, were stricken down again with fever, narrowly escaped being eaten up by crocodiles, named the first obstruction they met with, we hope inappropriately, "Murchison's Falls," were deserted by the natives, were imprisoned on the island of Patuan, were pilfered and insulted by King Kamrasi in Kissuna, and were subjected to no end of sickness, privations, and trials before they reached the White Nile. All this, when Sir Samuel Baker was distinctly told at Magungo that canoes could navigate the Nile in its course from the lake to the Madi country, as there were no cataracts for a great distance. True that both the Madi and the Koshi, who dwell on the right and left banks of the river at its exit, were said to be hostile to the lake people, but this presumed hostility would not have entailed difficulties greater than what had been already overcome, or than what they had to suffer at the hands of the cowardly and treacherous Kamrasi. The difficulties might, indeed, have been all overcome by change of boat and boatmen, a thing they had to do, even upon the lake itself; upon one occasion indeed, changing boatmen four times in less than a mile. Sir Samuel, however, adds afterwards, that the natives most positively refused to take him down the Nile from the lake into the country of the Madi, as they said they would be killed by the people, who were their enemies, as he would not be with them on their return up the river: so we are left in doubt if the Victoria Nile was ascended, instead of the Nile proper being descended, from the love of geography, or from sheer necessity. The latter is to be doubted, for the travellers could have exchanged canoes on reaching the Madi and sent the lake people back in safety. This was all the more vexatious, as, Sir Samuel says, he could see the river issuing from the lake within eighteen miles of Magungo, and, although it is marked on the map as being navigable to the first cataract at Mount Koko, still the question of first importance, as to the navigability (with a few intervening portages) of the Great River Nile, from its embouchure in the Mediterranean to the Albert N'yanza, would have been forever determined, and Sir Samuel and Lady Baker might have been spared many perils and much suffering. This is one great point which may now happily be fairly considered as on the way of being settled.

It is not a little remarkable that so intuitively did the quick feminine perception of Lady Baker feel this point, that when Sir Samuel proposed going up to Karuma, although he felt, by taking so circuitous a route, he might lose the boats at Gondokoro and become a prisoner in Central Africa, ill and without quinine, for another year, Lady Baker not only voted in her state of abject weakness to complete the river to Karuma, but wished, if possible, to return and follow the Nile from the lake down to Gondokoro! The latter resolve, based upon the simple principle of "seeing is believing," was, however, declared by her lord and master "to be sacrifice most nobly proposed, but simply impossible and unnecessary." If there was any unnecessary sacrifice to be made in the matter, it would certainly seem to have been in taking the sick lady up to

Karuma, instead of conveying her by canoe down the Nile to Gondokoro.

A second and equally interesting point, although not of so much importance to the future opening of the country, is the possible communication between the Albert N'yanza and Lake Tanganyika. From the elevation at which Sir Samuel Baker stood, when he first saw Lake Albert, with a boundless horizon to the south and south-west, its waters would appear to extend beyond the parallel assigned by Burton and Speke to Lake Rusisi, and, in fact, to embrace that lake as a kind of inlet, as also Lake Tanganyika further south. The elevation given to Lake Tanganyika of only eighteen hundred and forty-four feet above the level of the sea, while Albert N'yanza is two thousand four hundred and forty feet above the same level, and the information given to Burton and Speke as to the waters at the north end of Tanganyika flowing into that lake, are opposed to this view of the subject; but it is possible that there may have been an error in the barometrical observation made, as also in the information obtained from the natives. It is now known that the waters of Lake Tanganyika do not flow into the N'yassa, which has an elevation of only thirteen hundred feet above the level of the sea; but, on the contrary, that the rivers and small lakes south of the Tanganyika pour their waters into that great reservoir. It is not probable that Lake Tanganyika should have no outlet and receive rivers at both its north and south extremities, as also in its centre—the Malagarasi. The position of the lake, added to the discovery made by Sir Samuel Baker of the great southerly extension of the Albert N'yanza, would then tend to show that the most southerly tributaries south of Tanganyika—possibly the Moi Tawa, discovered by Livingstone, north-east of the N'yassa—are the most remote sources of the Nile. It is to be hoped that Livingstone's last journey will have settled this dubious point, and we shall but express the satisfaction which will be felt by all, at hearing of the safe return of the great traveller before Sir Samuel Baker's expedition is set in motion. As that expedition partakes, if we understand rightly, of a character of Egyptian occupation and annexation, the African chiefs may now be induced to look upon the presence of a white man in their countries as the forerunner of invasion on the part of their hereditary foes, and the life of such a man, however innocent his intentions, would no longer be safe.

Dr. Livingstone may, however, be in quite a different part of the country; for it is Sir R. I. Murchison's opinion that if the distinguished traveller satisfied himself when at the southern end of Lake Tanganyika that its waters were about eighteen hundred feet above the sea, as stated by Burton and Speke, he would necessarily infer that they could not flow northwards into the much higher equatorial lakes. In this case he would abandon the northern route, in which it was supposed he might find the waters of the Tanganyika flowing into the Albert N'yanza of Baker. Having also ascertained that the Tanganyika was fed by rivers flowing from the south and the east, it would be evident under these circumstances that this vast body of fresh water (three hundred miles in length) must find its way to the west, and he would then follow the river or rivers which issue on the west coast of Africa. Under this supposition, Sir R. I. Murchison thinks he may be first heard of from one of the western Portuguese settlements, or even from those on the Congo. If this view be entertained, we cannot be expected to hear of Livingstone for some time to come, as the distance he would have to traverse is vast, and the region unknown. This hypothesis is also said to explain why no intelligence whatever respecting him has been received at Zanzibar, inasmuch as he has been travelling through a vast country, the inhabitants of which have no communication with the eastern coast. Sir R. I. Murchison says he entertains a well-founded hope that his distinguished friend—thanks to his iron frame and undying energy—will issue from Africa on the same shore at which, after a very long absence, he reappeared after his first great traverse of Southern Africa.

A third and very curious point presents itself in the possible existence of one or more outlets to the Albert N'yanza. We have seen that Sir Samuel Baker satisfied himself as to the existence of a river flowing out of the lake

into the White Nile, which the natives told him was navigable for some distance, and by which, therefore, it is to be supposed that the lake could be entered in boats from the Nile, without the necessity of conveying them, as we are informed is to be done, in pieces to the shores of the lake. But two French traders, Messrs. Jules and Ambrose Poncet, who have explored the country between the Gazelle lake and the Albert N'yanza, express themselves as perfectly satisfied that the river Jur, Bibi, or Bahr Kakunda, as it is variously designated, flows out of the Luta N'zigé (as they call the Albert N'yanza) into the Gazelle lake. If this is so, the river of the Jur tribe and of the Niam Nams would present another means of approach to the great lake.

But this is not all. The same informants, who have trading ports on the Jur, have also founded another station, marked on their map* as Cagouma (Kaguma), Etablissement Poncet, on a great river which flows from south-east to north-west, and which is called Bahr-Bura, or Bahr-Munbutu. This river, they say, which evidently comes from Lake Luta N'zigé, divides itself in about four degrees of north latitude into two branches, that to the east flowing, under the same of Suwa, to the north-west, to go probably to form the Shary or Asu, which throws itself, after its junction with the Bah-gun or Bah-baï, into Lake Tsad. The westerly branch, which is much the largest, keeps its name of Bahr-Bura, and flows in a west-north-west direction to about the 6th degree of north latitude, at which point, according to the Munbutu people, after receiving another considerable affluent coming likewise from the south-east, it empties itself into a great lake, in part marshy, and which was called by the people of Ali Umuri, an Arab trader, Birka Matuassat. This lake, again, is described as having two outlets; one to the north, known as the Bah-gun or Bah-baï, joins the Shary south of Lake Tsad; the other, and the most important, issuing from the west end of the lake, according to all appearances gives birth to the Binuwa Niger, or at all events to an affluent of the Binuwa and Kwarra—the Kibbi or Kulla—which in that case will possess a much greater importance than has hitherto been conceded to it—an importance equal to that of the Binuwa or Kwarra itself.

It is not likely that there should be so much division and subdivision of waters as is here described. Excepting in a delta, the general rule of rivers is to receive affluents in their progress to the sea, and not to divide into branches; but the region between the Albert N'yanza and the Gazelle lake is nothing more than an inland delta, as is also apparently the case at the north end of the Victoria N'yanza, and the same thing may hold good of the Bahr-Bura and Lake Matuassat.

This latter lake would appear to correspond to the Muata Yanvo, of which the old geographer D'Anville obtained some notice, and near which was Monsol, or Munsul, capital of the Anziko, proximately placed on the map attached to Mr. W. D. Cooley's "Inner Africa Laid Open" (London, 1852). It appears that an Italian explorer, Carlo Piagga, has also pushed his researches in the same direction, and that he has obtained information of the existence of "a vast interior lake" lying on the equator or south of it; and Sir R. I. Murchison has justly pointed out that an entirely new field for research is thus laid open to the enterprise of explorers, who will have to determine whether the streams issuing from this immense lake and the adjacent region to the west of twenty-five degrees east longitude do not flow from a watershed entirely separated from that of all the affluents of the Nile, and which sends its waters into the South Atlantic Ocean, and probably by the great river of Congo.*

It would scarcely seem that the immense lake here alluded to as lying on the equator, or south of it, is the same as the Matuassat of Messrs. Poncet, which is placed in about six degrees north latitude, unless it has an extent of some six degrees, which is not at all impossible. Albert N'yanza has possibly an almost equal extent, and if it joins lake Tanganyika, would embrace in its prolongation over ten degrees of

* Bulletin de la Société de Géographie. Mai, 1868.

* Proceedings of the Roy. Geo. Soc., vol. xiii. p. 8.

latitude. It is curious, in connection with Sir R. I. Murchison's suggestion, that this great central lake may give birth to the Congo, that Fernando de Enciso speaks in his "Suma de Geografia," of a fact learned from the natives of Congo, that the river Zaire, or Congo, rises from a lake in the interior, from which another great river, presumed to be the Nile, flows in an opposite direction. This may be one of the rivers seen by Sir Samuel Baker tumbling through gorges in the Blue Mountains west of the Albert N'yanza.

The theory, however, advocated by the Messrs. Poncet, of Lake Matuassat sending off tributaries to the Binuwa Niger, and to the Shary and Lake Tsad, as also by Fernando de Enciso and Sir R. I. Murchison, to the Congo, only corroborates the old opinion held by the father of history and by all the old geographers, that one half of the Nile flowed over Egypt and the other half over Ethiopia. "There are two mountains," said Herodotus, from information obtained from the registrar of Minerva's treasury at Laïs, "rising into a sharp peak, situated between the city of Syene in Thebaïs and Elephantine; the names of these mountains are the one Crophi and the other Mophi; that the sources of the Nile, which are *bottomless*, flow from between these mountains, and that half of the water flows over Egypt and to the north, and the other half over Ethiopia and the south." (Euterpe, ii. 28.)

The sources of the Nile being described as bottomless, are evidently meant as issuing from a lake, and it is afterwards that they pass through the mountains, the names of which, admitting an error in their positioning, would be represented by the Koshi and Madi of the present day. The transposition and indentification is rendered all the more necessary, as the sources of the Nile could not have been between Syene and Elephantine, nor could the river have divided itself in such a latitude, to flow one half to Egypt and the other half to Ethiopia. It is remarkable that the Oriental geographers, as more especially Al Idrisi and Abu'l Fada, represent this division of the head-waters of the Nile into an Egyptian and an Ethiopian river, as a well-determined fact.

Such, then, are some of the points to be determined by the navigation and exploration of the Albert N'yanza, and they are of the greatest possible interest, as they will probably either themselves lead to the unveiling of the mystery which has so long made a blank of our maps in as far as Central Africa is concerned, or they may pave the way to the gradual unfolding of every detail connected with the origin of the Nile, the Congo, and the Binuwa Kwarra, or eastern Nigèr—of the Egyptian Nile, and the Ethiopic Nile.

Interesting and curious as the solution of such questions may be, great as will be the difference made upon existing maps, and various the people and the regions that will be brought under the cognizance of the civilized world; still, even all these additions to knowledge pale in importance before the prospect opened of an amelioration in the condition of the African races, only recently made known to us by the explorations of Burton, Speke, Grant, Petherick, Baker, and others. Of all the impressions left upon the reader of Sir Samuel's book, those relating to the slave-trade of the White Nile are perhaps the most startling. Many people have thought but lightly of the evils connected with Oriental slavery. Those who were most enthusiastic in waging war against the trade of the west coast were content, for the most part, to look upon Turkish and Egyptian slavery as a minor evil compared with the other, and one which was so ineradicably mixed up with the nature of Oriental life and despotism, that any denunciations directed against it would be as absurd as they would be futile. No doubt, too, the slavery itself was a comparatively small evil. The subjection of one human creature to another is not so shameful a phenomenon to the African mind as to be unendurable, when it takes that patriarchal and domestic character with which slavery in the East appears to be more or less invested, and more especially when the slave continues to enjoy a climate something like his own.

Sir Samuel Baker may, however, be said to have lifted the veil which concealed the process by which the slave markets of Cairo and Constantinople were recruited. Barth has given us a

graphic, if painful, account of the expeditions of the Muhammadan Sultans of Bornu, Baghirmi, and Sokoto, carried on even into Adamawa and the regions of the Binuwa and Eastern Niger, and, still more recently, M. Mage has depicted with the most striking minuteness, life, as it is on the Upper Niger and in the vast Pullo-Felatah dominions. That life appears, under the rude sway of the Muhammadan, to be one successive, continuous, and incessant warfare; the enslaving of everything pagan; reprisals, murders, and executions. We have also heard something of the questionable proceedings of the Egyptians on the western frontiers of Abyssinia from Taka to the upper regions of the Blue Nile, and we have always regretted that the costly expedition sent to that country to liberate the British captives should have done nothing towards ensuring the immunity of a Christian people against the enslaving propensities of their Egyptian neighbors. Sir Samuel Baker may be said to be one of the first to make us acquainted with the nature of the raids made by Muhammadan slave-dealers from Gondokoro against the Obbos and Latukas, and other tribes in the neighborhood, and which were so cruel and reckless in their character, that, it has been justly observed, one of the worst features of Sir Samuel's journey must have been the necessity of witnessing, without the power of mitigating in even the slightest degree, the atrocities which the slave-seekers committed. Under cover of carrying on an "ivory trade," armed bands of desperadoes ascend the river and penetrate into the heart of some savage country. To be at war with one another is a normal condition of existence amongst the native tribes. Taking advantage of this, the traders offer their alliance to the tribe with whom they first come in contact, on the understanding that they may be at liberty to make prisoners from the enemy. The African savage is either too simple to see, or, what is far more likely, is willing, for the sake of revenge, to close his eyes to the fatal nature of the friendship offered. Assisted by his Mussulman allies, he sets forth on the campaign, and, amidst the reckless slaughter that ensues, a draught of living captives is secured for the trader's net. But very soon the original dupes, if they can be so termed, discover that the trader is equally ready to turn his arms against them. In alliance with some other tribe, he makes war against them in turn, and the friends who assisted him to effect his first captures fall victims to his whips and chains in turn. Forced to some extent into association with the "ivory traders," Sir Samuel beheld their proceedings. Very narrowly did he escape a sudden death at their hands, but his wonderful intrepidity carried him through, and he lived to register a resolution that, if he ever came back from his wanderings, he would do something to interfere with the proceedings which, for the time being, he could only contemplate with secret indignation. The time for action has now happily arrived. No doubt it will be a difficult task to persuade the tribes, through which the "ivory traders," have passed, that the object of the expedition is simply the extinction of the slave trade. It matters, however, little whether the Africans fully understand the expedition at first. The traders of Gondokoro will comprehend it readily enough, and they will soon feel, or be made to feel, that a prompt submission to the new system to be inaugurated is inevitable. This, then, one of the avowed philanthropic purposes of the expedition, with the anticipated opening of Central Africa to the purposes of commerce, and the withdrawing of the veil which has so long hung over so large a portion of the earth's surface, fully entitle the projected expedition to our most earnest hopes of success, and to anticipate that it will yet constitute one of the most remarkable pages in the history of our own times.

Cornhill Magazine.

WALLENSTEIN AND HIS TIMES.

PART II.

THE example of Mansfeldt called up a crowd of partisans as reckless as himself, who furnished Maximilian of Bavaria, and his general, Tilly, with ample employment for the next four years. Beaten and dispersed in one quarter, they sprang

up just as fiercely in another; transferring the seat of war from province to province, until the whole country between the Baltic and the Rhine was thoroughly weary of the belligerents and their ravages. Partly to put a stop to those ravages, and partly alarmed at the attitude assumed by the Catholic Princes, the Protestants renewed their league in good earnest, and set on foot an army of 60,000 men, under the command of the Danish King, who, as Duke of Holstein, was also a Prince of the Empire. Hitherto, Ferdinand had found sufficient occupation in reorganizing his shattered dominions, and had been compelled, therefore, to leave the direction of the war in the hands of the Bavarian Elector; and now, when he would gladly have taken a leading part therein himself, he neither had, nor was likely to have, the means for many a year to come. Yet it was absolutely necessary to be doing. Things had gone so far that, whether defeated or victorious in the coming struggle, Maximilian threatened to leave Ferdinand little more than the name of Emperor. The matter was discussed over and over by the Aulic Council, but with small effect. As a body, it had no remedy to suggest. Day after day the members met, and shook their heads, with all the gravity of Lord Burleigh. They examined the situation, enumerated the difficulties, vituperated the causes, and wound up by declaring, with disgusting iteration, that "*nothing could be done.*" And nothing would have been done had matters remained depending on the wisdom and energy of the Aulic Council. The Emperor was at his wits' end, and showed it; and then Wallenstein came forward, exactly like the benevolent fairy in the tale, and with an offer that smacked completely of fairyland. It was—an army strong enough to bear down all opposition, and to render the Emperor as great in power as he was in name, *without costing him a single kreutzer.* There was a general shudder at the proposal, for Wallenstein had a dark repute, and his fellow-councillors at once made up their minds that he meant to marshal an army of demons at his back; or, at the very least, to rouse up Barbarossa and his warriors from their magic sleep under the castle of Kiffhausen: and neither of these were overpleasant devices in themselves. But though Wallenstein reassured his coadjutors on these points, he had no small difficulty in obtaining their sanction to his plan, and that simply because it was novel; for many of these gentlemen evidently preferred ruin in the way of routine to a means of salvation that had no precedent to recommend it. Once at liberty to act, the Friedländer did not lose a moment. Out went his recruiting officers in all directions, and so well did they work that he marched from Egra for the North early in autumn, just three months after receiving his commission, at the head of 30,000 men; and so rapidly did his army accumulate on the route, that it reached the seat of war full 50,000 strong. Wallenstein's directions were to unite and act with Tilly. But once at the head of an army, he soon showed that no will but his own would be admitted there. The forces of the King of Denmark were scattered along the right bank of the Weser, and those of Tilly disposed down the left. East of these, the Protestants of Brandenburg, Saxony, and Pomerania, had mustered their forces. Heedless of imperial injunction, Wallenstein left Tilly far to his left, and marching straight to the Elbe, seized the Bridge of Dessau, and established himself strongly on both sides of the river. This was a piece of admirable strategy. His own communications were safe, he could operate at will on either bank of the Elbe, he had cut the Protestant League in two, and he had placed himself menacingly on the flank of their two principal armies. Nor were these great advantages all that he gained by this able movement. His maxim was, that war must be made to support war, and countries as yet unwasted were thus laid open. The Danish monarch and his generals were soon aware of their peril, and that desperate fellow, Mansfeldt, determined to avert it. Gathering his brigands, 18,000 strong, he flung himself fiercely at Wallenstein's entrenchments. But fourfold numbers were marshalled skilfully within, and, after a desperate struggle, the *condottiere* was hurled back in retreat, leaving 3,000 dead on the spot. But he was not baffled yet. Rallying his cut-throats, and making good his losses—for a leader like him was never in want of recruits—he dashed down Silesia at a headlong pace. Meanwhile, that

arch-intriguer, Thurn, had roused up Bethlem Gabor to another rebellion, and, more dangerous still, overspread Austria with a terrible peasant war. The Transylvanian was already in great force before Presburg, and, could Mansfeldt join his camp, Vienna, and with it the empire, would run considerable risk. But the partisan had scarcely developed his plan when Wallenstein was hard upon his track. Nothing but the danger of the capital could have tempted the latter from his vantage-ground; indeed, he left it with much reluctance. But once in motion, Mansfeldt himself was not more fierce nor decided. That was something like a chase: tigers in front, and tigers in rear. In vain Imperial bands endeavored to bar the fords and numerous passes, and to hold the strong places; one after another, wily plan or fierce assault threw them into the hands of Mansfeldt, to fall, a few hours later, and in like manner, into those of Wallenstein. Oppeln, Ratibor, Jägerndorf, and Troppau, were thus captured and recaptured in quick succession. At last Mansfeldt, after a hundred fights and hairbreadth escapes, and innumerable deeds of "derring-do," entered the camp of Bethlem Gabor; but, fortunately for the empire, not with his formidable division. That terrible march had destroyed three-fourths of its numbers, and all its confidence. Mansfeldt himself, indeed, would have been a host anywhere; but Mansfeldt was no longer himself. The fatigues of that unparalleled campaign had destroyed his feeble, hunchback body; and a spirit, however indomitable, is useless without a body. He died a few months after in Dalmatia, like the fierce old Jarl Siward, upright, and in his armor. A horde of miserable fugitives was all that entered the camp of Bethlem Gabor. Discouraged by this, the latter broke up, and retreated to his fastnesses; while the peasants, left to themselves, were put down by that thorough soldier, Papenheim, after much desperate and some doubtful fighting. Mansfeldt's threatening march had resulted in the safety of the empire. The home provinces were safer now than ever; Bethlem Gabor was disabled for a time; the great partisan being dead, there was no general left to the Protestants; and, finally, during Wallenstein's "wild chase," Tilly had met and beaten the King of Denmark at Lutter, killing 5,000 of his men, and taking all his baggage.

Wallenstein's return northward was a triumphal procession. Swelling as he advanced, his forces rose to 60,000, 70,000, 80,000 men; nor did they pause there. Nothing dared to oppose him in the open field, and the few strong places that ventured to hold out were carried by merciless assault. He bore down everything in fact by sheer weight of numbers. He dictated terms to the Elector of Brandenburg. He inundated the Duchy of Mecklenburg, and the Dukes—sovereign princes—were deposed, and himself raised to that eminence in their stead. He advanced to the Baltic, proceeded to take possession of its ports, and meditated crossing to the conquest of Scandinavia. And this, audacious as it was, was the least of his projects, which by this time included the reduction of the numerous petty sovereigns to the rank of subjects, the formation of a German navy, and the expulsion of the Turks from Europe. Nor did any of these projects seem extravagant. His forces by 1628 amounted to fully 120,000 men, and they were still increasing; while, in exact proportion as he waxed strong, everybody else grew feeble; neither friend nor enemy could maintain an army in his vicinity; men and leaders deserted alike to join the great Friedländer. And well they might, for no other service since Alexander's ever offered equal advantages. In his army, even more than in that of Napoleon's, promotion went by merit; and provided that they obeyed and fought, his soldiers might do whatever else they pleased.

But let us look into the camp. There we shall find men of all professions and every land—Jews, lawyers, merchants, and scholars, as well as soldiers; everybody, indeed, but clergymen. These last are strictly prohibited: "No parsons" is one of Wallenstein's watchwords. In one corner a professor of the famous Passau art—one who renders men impervious to lead and steel—*gefrorn*, as the soldiers call it—has taken up his abode. And a lucrative craft he follows, for he is always in requisition. The individual to be fortified lays down his ducats, has certain talismanic cha-

racters traced over the vital parts of his body, and receives a number of slips of paper, each inscribed with a magic rhyme. These he swallows like a pill at the approach of danger, and the charm is complete; one scroll thus disposed of rendering him invulnerable for six hours, two for twelve, and so on. There are few celebrated soldiers in the army who are not *gefrorn;* at least in repute, the Generalissimo himself being conspicuous among them. Nor is this a mere vulgar superstition. The very first article of the military code of Gustavus Adolphus forbids the practice under the severest penalties. Close by an astrologer of fame has established himself, and carries on as profitable a trade. Hour after hour he sits, answering queries on every possible subject—promotion, duels, gaming, mistresses; the event of an expedition, &c., &c. Not far off, but incomparably humbler in all respects, burrows a scholar, who ekes out a living by exercising his pen in the service of illiterate warriors; occasionally increasing his gains by supplying a motto for a new pair of colors, when a successful enterprise has enabled a regiment of his acquaintance to indulge in that luxury. Here a body of soldiers are disposing of their booty; chaffering with keen-looking Jews over armor, clothing, household goods, all sorts of odds and ends indeed —many of them carrying stains terribly significant of the means by which they were acquired. Close by are a number of cavaliers, busily arranging ransom with their captives. Nor are the latter all warriors. A large proportion are civilians of both sexes and all ages. There is not much haggling about the terms. Half an hour before a group, who could not, or would not, pay the sum demanded, was driven away, with nose and ears mutilated. A scene still stranger may be witnessed a few yards further on. A troop of marauders has just arrived, each man leading at least one female, attached by a rope to his saddle-bow. A crowd gathers round, and the slave-markets of the East are more than realized. Down in the hollow there two or three groups are engaged in mortal duel. Round the next corner we shall encounter the provost-marshal, leading half a dozen deserters, a couple of spies, and three or four other offenders, to their death under the nearest tree. At another turn we shall come upon a set of fellows engaged in torturing prisoners suspected of having concealed treasures. Round the head of one a cord is twined so tightly that his eyes appear starting from their sockets; and another is stretched upon the ground, while a soldier is coolly filling him with water by means of a horn fastened in his mouth. The wretch is frightfully swollen; but the torture will go on until he yields up his treasure, if he has any, or dies. And this is what was afterwards known as the "Swedish Draught." Yonder a regiment, two or three thousand strong, is drawn up in two long lines. Each man wields his swordbelt, doubled up; and a couple of culprits, stripped to the waist, are preparing to run the gauntlet down the lines and up again. Woe to them if they happen to be unpopular. We turn up one of the avenues of tents that lead towards the centre of the camp. There are soldiers carousing, rioting, and scouring their appointments on all sides, amid crowds of degraded women and a very Babel of noises. At once the tumult subsides to the merest hum, and every eye is averted. The General—that tall figure with the crimson mantle and long red plume—is coming; and he detests equally a noise and a searching eye. No one seems to notice him, except a reckless corporal, who pushes forward a horn half filled with brandy, and with tipsy familiarity invites the General to drink. "Hang the brute," grunts Wallenstein, and the rascal is instantly seized. But thoroughly sober now, he breaks loose, draws his sword, and rushes at the General, fully resolved to cut him down. A dozen weapons interpose, and after a severe struggle the corporal is disarmed and again a prisoner; while an adroit hand has even already knotted a scarf round his neck and thrown the end of it over the pole of a wagon that stands tipped handily on end. A dozen arms are prepared to pull, awaiting only the General's signal. The latter searches the offender with a look of contempt. "Now, let him go," he grumbles, when he considers that the corporal has tasted sufficiently the bitterness of death; and the fellow makes a rapid exit. The others disperse

without a word, except the man of the scarf, a square-built fellow, with a curiously notched countenance. "You led the assault at So-and-so?" The man bows. "Give him a hundred dollars," commands Wallenstein, and passes on; but the command is scrupulously obeyed. And thus he traverses the camp, administering punishment and reward as he goes; sentencing one to be hanged, another to run the gauntlet, a third to ride the wooden horse, with a couple of muskets at each foot, and distributing dollars and promotion just as liberally.

Let us follow him to his tent. His great standard is planted before it—the goddess Fortune emblazoned in gold on a green field. Mark the sentries: they pace up and down like spectres. Neither clanging swords nor jingling spurs are permitted here: the one is wrapped in the soldier's scarf, the other twined round with cord. An officer approaches, and, with the usual averted eye, makes his report: such a fort has been captured by the enemy. "Sir," replies the General, "the Supreme Being could not take that fort." And a subsequent dispatch justifies the confidence thus singularly expressed. Business dispatched, Wallenstein enters an inner tent. There sits a man with a fame as wide and lasting as his own. It is Kepler, the General's mathematician (courtly slang for astrologer), with all the paraphernalia of his art about him. The next hour is given to the stars. But though Wallenstein be a dupe, he is not a very tractable one. Every calculation of the astrologer is checked by one of his own, and the slightest discrepancy leads to a controversy, which ends as such things always end when the parties are a dependant and an obstinate master. Kepler's position is not a very easy one. But he has a fine establishment and a large salary; and, better still, the latter is paid to the day,—a thing that does not always happen at court, as Kepler himself experienced when he served an emperor.

A messenger arrives from court: it is his friend Questenberg. They are mutually serviceable to one another. There is important public business to be discussed. But their private affairs obtain the *pas*. Court intrigues, friends and enemies, those who have been bribed and those who must be bribed, are considered, and their line of action reviewed and modified as circumstances suggest. Then the public matters are noticed, principally complaints. "The princes complain you treat friend and foe alike; your armies are excessive, your exactions ruinous." "The princes wear long mantles; I have clipped them a little, and mean to clip them more: Germany needs no Spanish grandees—one Emperor is *and shall be enough*." "The Jesuits complain you employ Protestants largely, reward them, promote them." "Victory and death are of no religion." "The Pope, too, complains." "Hum—it's a hundred years since Rome was sacked, and it must be richer now than ever." "His Majesty of Sweden meditates making war in Germany." "Let him come. I will whip him home with a birch-rod like a school-boy." Then comes the old grievance and the old remedy—the Emperor wants money: and Wallenstein makes another of these advances, that amount in the aggregate to 3,000,000 of florins.

And so Wallenstein and his army went on, carrying all before them indeed, but levying contributions to the amount of 5,000,000*l.* a year, and booty beyond calculation; and ruining province after province; that one being esteemed fortunate wherein the population had fallen only one half. In some districts not a human habitation, not a living thing was left. In one large one just three women remained after Wallenstein's army had marched through; and in several the peasants were driven in their extremity to that hideous resource—cannibalism. But what cared Wallenstein? The more the country suffered, the more his army multiplied, for the camp was the refuge of the ruined. And with his army grew his fortunes. He was the lord of provinces rather than estates,—he was baron, count, duke, prince; and finally, in 1628, "General of the Baltic and Oceanic Seas." And his repute extended still further: invincible, invulnerable, the master of fortune, the ally of the powers of darkness; the man who read the future like a book. Warriors rejoiced in such a chief, while all good Catholics shuddered and crossed themselves when this human phenomenon swept by. But neither Catholic nor Protestant could

stand this much longer. Beyond the camp every one was his enemy; and the multitude waited only an opportunity to assail him. That was supplied by his failure before Stralsund, and the Diet assembled at Ratisbon in 1630, amid the universal shout—"Down with Wallenstein!"

Thither trooped the princes, making a miserable show in comparison with former days; thither came the Imperial Court, more powerful than for many a year; and thither, with 600 gentlemen splendidly appointed in his train, a king among kings, rode "that insupportable dictator and oppressor of princes"—Wallenstein. Thither, too, came the various ambassadors of Europe; and most conspicuous of all, though wrapped in his humble capuchin, that subtle friar, who was described as having "no soul, but only pools and shoals, on which every one must strand who entered into negotiations with him,"—"Richelieu's right arm,"—Father Joseph. For the great Cardinal, having just subdued the Huguenots, was now prepared to extend the same good measure to the House of Hapsburg; and, as the first serious step in that direction, he was determined to ruin "the upstart." This was a point on which nearly everybody was agreed, German and foreigner, Protestant and Catholic. But it was easier said than done. For Wallenstein had his spies everywhere, and the court willing, was fully prepared to counterwork his foes at home and abroad, in his own bold and sweeping style. One hundred thousand men were disposed along the French frontier, and everything arranged for a march on Paris. Nor was there anything in France capable of resisting such a host,—veterans every one,—and under the best leaders of the day. As for the princes, his plan was short and simple, but promised to be very effective. Thirty thousand men were arranged to act in flying columns—seizing the minor capitals and quelling all opposition, while 20,000 more, under the Friedländer himself, should beset the Diet, and *slay the princes to the last man.* Great as was the crime, Ferdinand hesitated. And well he might, for the temptation was all but irresistible—nothing less than universal empire. Such a stroke would place Germany unreservedly in his hand; and what might not be achieved by the might of Germany concentrated under such a chief as Wallenstein? Ferdinand wavered. As for the Tempter, the word "crime" had long been expunged from his vocabulary. He could see nothing but the splendid future,—his master a despot, himself mayor of the palace; his Germany—for he was a patriot in his way—such a power as it ought to be: the slices of Fatherland filched by the lurking, meddling Gaul, during centuries of internal dissension, wrenched back by one bold effort: a German fleet on every ocean; a German colony in each new land; German arms restoring the cross to the shores of the Mediterranean; and German supremacy acknowledged everywhere. His army was devoted to him: there was absolutely nothing to withhold its resistless rush. Let but the Emperor give the signal and the thing was done. But the signal never came. Ferdinand was not the man to "cry havoc, and let slip the dogs of war," on such a scale. And, besides, everybody was urging him in the opposite direction—his family, his confessor, the princes, the ambassadors, the very Pope himself. Just at the crisis, when the struggle in the Imperial mind raged highest, Wallenstein withdrew to his head-quarters at Meiningen, and then Ferdinand gave way, slowly and reluctantly indeed, but decisively. On the 4th of July, 1630, he signed the warrant of dismissal. But who was to communicate it to the dreaded soldier? and, above all, who was to enforce it, if, as was only too probable, he refused to obey? Until these things were settled, the situation of the Diet, the anxiety of its members, and the tension of popular expectation, may be imagined but not described.

But Wallenstein did not intend to resist—why, no one can presume to guess. Astrology swayed him indeed; but it was only when circumstances refused to speak for themselves. And, besides, it was his interest in those superstitious times to attribute the results of keen calculation and iron will as much as possible to the influence of the stars, to teach men to regard and therefore revere and dread him as the man of Destiny. He used the science to deceive his contemporaries rather than himself. And, master of the situation as he now was, Wallenstein was not exactly the man to falter in his course out of deference to the planets.

His friends, Werdenberg and Questenberg, were the only men who dared approach him with the momentous document: for they had not merely withstood the princes, but, as Wallenstein well knew, advocated his great plans by every argument in their power. And as trusty friends he received them. But they had no need to utter a single word. Scarcely were they seated, when he took some papers from the table. "These sheets," said he, "contain the nativities of the Emperor and of the Elector of Bavaria. The stars declare that the demon of the Elector predominates for the present, *and I obey the stars.*" He retired to his Duchy of Friedland. Mecklenburg was restored to its rightful owners. But he lost nothing except the dignity. The Emperor, who seems to have been really grateful to his magnificent servant, more than made up any loss of revenue by further grants. As to the army, it had reason to regret the loss of its leader. Half was turned over to Tilly, and the other half disbanded. But such a life as they led in the camp of Wallenstein had unfitted them for peaceful avocation, and before the year was out, nearly every man of them had joined Gustavus Adolphus. And thus the Diet of Ratisbon provided that formidable captain with those trained and seasoned warriors who marched in two campaigns from the Baltic to the Rhine; marking every halt-place by the way with a startling victory.

Wallenstein retired to his estates, and, if appearances were to be trusted, not a moment too soon. His appetite was disordered; he could not sleep, and his steps needed a staff. A cardinal in such a plight would have been the favorite candidate for the next pontifical vacancy. But never did the most vigorous prime put forth such astonishing energy as this debilitated man. He grasped at once the whole management of his enormous property; redistributed his investments, built new towns, and colonized waste lands. He employed an army of workmen on a dozen palaces at once, and revolutionized his already splendid establishment in still more splendid style. And besides, his political agents were hurrying in all directions to carry out a hundred schemes: to court, where, under cover of seeking to have his duchies erected into sovereignties, he intrigued with the Ministers; to the neighboring princes, with whom he treated on equal terms and with many views; to the Danish King, with whom he negotiated in the Emperor's name; and, finally, Count Thurn went to and fro, in many disguises and through a hundred perils, between this singular invalid and Gustavus Adolphus!

We have often thought that the old Greek myth—Prometheus bound to his rock—was intended for a Wallenstein in retirement. He could lay down his command, but not his master passions. And these, ambition, and, of late, revenge, were absolutely devouring him. In spite of the hundred occupations into which he plunged with such startling energy, they found ample time to assail and involve him in a world of intrigue. And now, in conjunction with his one strange superstition, they had impelled him to this last worst step. Once more he had betaken himself, and with more than youthful fervor, to the phantasms of astrology. Yet not unnaturally. Anxiety to read the future is the weakness of ardent temperaments, the failing of those who greatly dare. Not much, indeed, in prosperity; then they seldom believe in more than energy and intellect. But before success, and after—in the intensity of early aspiration, and still more in the passionate longing for the Resurgam—a Lenormand or a Seni may sway these far-reaching spirits like so many school-girls. Two coincidences, striking enough to those given to note such things, had drawn Wallenstein's attention to Gustavus Adolphus. On the 4th of July, 1630, that monarch first set foot in Germany, and on the 2nd of October he laid siege to Rostock, the principal town of Wallenstein's lost sovereignty, Mecklenburg: the first being the very day on which the dismissal of the Friedländer had been signed, and the second that on which he had laid down his command. This was quite enough to originate the notion that his fate was bound up with that of the Swedish King; and of course he soon found ample confirmation for it among the stars.

"Give me fifteen thousand men," said he to Gustavus, by the mouth of Thurn; "I will raise as many more at my own expense; and with this force I engage to

wrest Bohemia and Moravia from the Emperor—nay, more, to drive him out of Germany. In recompense I merely ask the restoration of my duchy and the sovereignty of such lands as I may conquer." But Gustavus was not the man to countenance a Wallenstein. The former was too ambitious and far-reaching himself to tolerate a coadjutor of similar disposition; and, though he took good care not to irritate the Friedländer by a harsh reply, he was equally careful that nothing should come of the proposal. But there were other means of gaining an army open to Wallenstein; and, now that the first plunge had been made into treason, he found little difficulty in taking a full bath. To work, then, he went with the Protestant princes and the Court of France, holding out to the former the prospect of a German party independent of Emperor and Swede, and equally formidable to both; and to the latter the humiliation of the House of Habsburg—possibly the partition of its possessions, but certainly the establishment of a permanent check on its pretensions by his own coronation as King of Bohemia. Negotiations like these could not be matured in a day. Meanwhile events were progressing with lightning like speed to place him—without an effort of his own, indeed, in spite of himself—in a prouder position than that he had resigned.

Wallenstein had left the Emperor, with 200,000 men in arms, supreme from the Alps to the Baltic. In twelve short months that great force had been hurled back over one great river after another, its numbers dwindling at every stride by battle, pestilence, and desertion, until not a third of it now remained, cowering timidly behind the Danube, its last line of defence. The "Ice-King's" forces had accumulated the while like a rolling snowball. From 14,000 men they had swollen to ten times that number. Stretching from Poland to France, one wing swept the Palatinate and the other Silesia, while the Saxon contingent was preparing to carry the war into Bohemia; and nothing could stand before them. The new military system introduced by the Swedish King had proved an immense success. The old-fashioned clumsy battalions, with their complicated manœuvres and cumbrous arms, gave way everywhere before the handy brigades, simple movements, and improved weapons of Gustavus. Even Tilly himself—over-matched, out-generalled, and beaten in one fierce fight—confessed plainly that he knew not what to do against them. So far as he and his army were concerned, a great catastrophe was evidently impending. And all this Wallenstein beheld with grim satisfaction; but his friends at court failed not to improve the crisis to his advantage and their own. Nor were their voices unsupported. Public opinion, or what was then and there so esteemed,—the opinion of the ruling caste,—had veered round with events. And now—the sovereign princes aside—the universal cry was "Wallenstein."

The Saxons entered Bohemia towards the end of October, and advanced on Prague. Maradas, the governor, lost his head. He consulted Wallenstein. "Sir," said the latter, with cool indifference, "I hold no command here, and cannot presume to direct you." At the same time, foreseeing the event, he dispatched his Duchess and his valuables to Vienna, in charge of his cousin, and retired himself to his castle of Gitschin. Prague fell, without resistance, on the 6th of November, and with it the greater portion of the country. This decided the court. There was no choice now between absolute ruin and the recall of the Friedländer. The Bavarian and Spanish factions detested him; and, more than either, the Jesuits. They knew the ambition of the man, his limitless daring, his relentless nature, and were not without some inkling of his mighty projects; but they knew also that none but he could aid them. So they made up their minds to submit for the present, comforting themselves with the reflection that they could still command the same excellent means of restraining a dangerous spirit which had served them, and others similarly situated, so well heretofore in the cases of Martinuzzi, the Guises, William of Orange, and Henri Quatre.

Scarcely had Maximilian Wallenstein reached Vienna when he was hurried back to Gitschin with an autograph letter from the Emperor to his mighty kinsman. "Do not go out of the way of my distress," supplicated this epistle. "Do not abandon me in my great need."

But the reply of Wallenstein was as cold and indifferent as if he felt not the slightest interest in the matter. Hard upon the heels of the first messenger came Questenberg and Werdenberg. The Friedländer received them even more coldly than the Imperial letter. He expatiated on the sweets of retirement; he expressed himself *deeply* grateful to those excellent people who had been the means of introducing him to these blessings. Glory was a phantom, popularity evanescent, royal favor precarious. He, at least, had done with these things forever. Next came the Prime Minister Eggenberg; and then—after days of intercession and argument, grovelling and promising—the court could obtain no more than this:—Wallenstein would consent to serve the Emperor for three months. But not a moment longer. He would raise an army once more. That effected, who would might command it. Assuredly he would not.

On the 22d of January, 1632, out came Wallenstein's proclamation, addressed to all good Germans in the first place; to all true soldiers in the second; and, in the third, "to all deserters and dissatisfied commanders." The summons was as characteristic as one of Napoleon's, and even more effective. Znaym was designated as the rendezvous, and thither came the daring and ambitious of every creed and clime: Lutherans, Calvinists and Catholics, Walloons, Croats, Cossacks, Italians and Britons—for Wallenstein made no distinction between nationalities and sects; and with him every man was sure of his desert. Gallas, Altringer, and Piccolomini—all his choicest captains—abandoned Tilly; half the Saxon army deserted within three weeks; and these good soldiers who had abandoned the camp on Wallenstein's retirement, along with a host of fresh and gallant spirits, hastened to invest their all in horses, arms, and followers, for they knew right well that under such a chief the return would be a hundredfold. It was a common thing for captains, when beating up for recruits, to enter the cottage of a likely man, and, placing a purse and a halter on the table, give him his choice.

Other efforts were necessary to supplement those of Wallenstein and his admirers, and these were not wanting. The Jesuits raised five regiments. Spain and Italy supplied ducats. The wealthy churchmen and the great nobles gave magnificently: Cardinal Dietrichstein put down 20,000*l.* and Prince Eggenberg 50,000*l.* Heavy imposts, too, were laid on—the very maid-servants having to pay a poll-tax of fifteen kreutzers. And, finally, the Pope added the colophon, in the shape of an unlimited contribution of prayers and processions.

So successful were these measures that in six weeks 20,000 men were assembled round the Friedländer's standard—the golden Fortune on the emerald field; and by the 1st of April the number had swollen to 50,000. Then Wallenstein laid down his command, and the court was about to indulge in much rejoicing. But, to its dismay, it soon found that Wallenstein was as indispensable to keep the army together as he had been to raise it. Neither soldier nor officer would follow any other, and the whole host was on the point of breaking up in a temper that boded no good to the empire. Of course there was another bitter negotiation and more grovelling before the court. The great chief insisted on unexampled terms. But the battle of the Lech was fought and lost, and Tilly mortally wounded, on the 5th of April; and the moment the news was confirmed everything was yielded,—the command "in absolutissima forma:" "I would not serve as lieutenant under the Supreme Being Himself," said Wallenstein—power also to deal with rebels as he pleased; the guarantee of investiture with one of the hereditary provinces; and the lordship of all the lands he might conquer. And then the march began as the camp-song put it:—

> The torch all aflame and the lance in its rest,
> Where duty and booty impel us we speed;
> To the North—to the South—to the East—to the West—
> As the Devil may drive, or the Friedländer lead.

In two months more Bohemia was reconquered. The Bavarian Elector joined Wallenstein, with the remnant of his army, at Egra, on the 26th of June. Historians give a singular picture of the meeting. There was, of course, a ceremonious reconciliation between them in the presence of both

armies; but every man there knew right well that, so far as the Elector was concerned, humiliation, and not reconciliation, was the word. The rivals embraced, and exchanged expressions of amity and esteem. His insolent demeanor then, and his boasts immediately afterwards, exposed the vulgar relish with which the Friedländer enjoyed his triumph. As for Maximilian, he maintained the same unruffled courtly ease as if he moved in the centre of a festival —not once, even in private, naming the Friedländer except with the respect due to his rank and ability. Never did the high-bred gentleman contrast more advantageously with the upstart.

Maximilian would fain have persuaded his coadjutor to march against Gustavus, who was carrying all before him in Bavaria; but Wallenstein, who searched the situation with a truer eye for war, saw his advantage otherwise. His rear was secure, his army was now effective, and the Swedes were dispersed from one extremity of Germany to the other. So, dashing out from Egra towards Nuremberg, he interposed a wall of iron between the scattered detachments of the foe. Gustavus took the alarm at once. And well he might—for a hundred disasters impended in that move—divisions cut off, supplies intercepted, and allies wrenched away among them. Gathering in hot haste the corps under his own immediate command, some 18,000 strong, he hurried at racing speed towards the threatened city. Everything depended on who should reach it first; but 18,000 men are moved more readily than 60,000; and, besides, the Imperialists were never capable of these impetuous marches. Gustavus, too, was a thorough Norseman, who rushed to battle over torrent and mountain just as his ancestors used to sweep across "the path of swans." And when Wallenstein came up, on the 30th of June, with his mighty host, and still mightier following —including not less than 20,000 women —he found his antagonist strongly entrenched before Nuremberg. The Friedländer did not attack. His was the last army of the empire, and he was well aware of the tactical superiority of the Swedes, and especially of their spirit and the spirit of their king. He could not even risk a repulse. So he kept his post steadily while corps after corps, relaxing their grip of the conquered lands, marched into the leagured camp, until at length the Swedes mustered more, by 10,000 men, than he did himself. Thus, without striking a single stroke, by sheer dint of superior strategy, Wallenstein had cleared Bavaria, and several other provinces, more effectually than he could have done by three campaigns of successful fighting. Nor did he now withdraw. Seizing a position in the neighborhood, he fortified it strongly, and held it patiently, until the country round was ruined. Pestilence and famine began to devastate the camps, and the men died by hundreds a day. Wallenstein was inflexible. They might "rot," he declared, to the last man, provided he retained his advantage. But the Swede was of another temper; and though he could hurl his warriors to die by tens of thousands on a stricken field, he could not bear to see them waste away like this. So, mustering all that remained, he made a desperate assault on the Friedländer's position. Attack followed attack for eight long hours without the smallest advantage. At last, as fell the night, he drew back with heavy loss; and, finding it impossible to subsist longer in the neighborhood, he garrisoned the city, and marched westward on the 8th of September with greatly diminished ranks. This was the first serious check that Gustavus ever experienced.

Wallenstein had suffered at least as severely—losing nearly half his force, and, on the 12th September, he too broke up. But not to follow the Swedes. The Bavarian elector stormed, supplicated, threatened, and finally detached himself with his troops; but Wallenstein kept unmoved to Saxony. Flying columns under Papenheim, Gallas, Holk, and Merode, preceded the march, and penetrated up to the gates of Dresden, perpetrating unheard-of atrocities, and reducing the beautiful country to a desert. Meanwhile Gustavus was back in Bavaria, preparing to carry the war into Austria itself, where the peasants were once again in fierce revolt. But news soon reached him of Wallenstein's doings, and compelled him to abandon his projects; for to linger would have been to lose the Saxons, and no advan-

tage gained in Austria could counterbalance that. On the 7th of October he marched from Bavaria. On the 15th he was back again at Nuremberg, and, on the 28th, he reviewed his troops at Erfurt, in the heart of Saxony. Wallenstein heard of his approach as he lay at Leipzic, and instantly dispatched Papenheim and his dragoons to seize the important post of Naümburg. But so rapidly did the Swedes come on, that they reached it first.

The situation was now a critical one for both parties. The Imperialists lay in and around Leipzic, right between Gustavus at Naumburg, twenty-five miles to the south-west; the Elector of Saxony and his army at Torgau, the same distance to the north-east; and the Duke of Luenburg, who, on his way to re-enforce the Swedes with his division, had reached Wittenberg, forty miles to the north. Wallenstein was just in the position that Napoleon would have loved. Three quick and heavy strokes was all that was needed on his part to close the war. But, admirable strategist as he was, rapid to seize the decisive points of a campaign, and tenacious to hold them, the traditions and usages of the school in which he had been trained hung heavily about him. The German winter, too, had already set in, and so, forgetting that times and seasons were alike to his antagonist, he determined to go into quarters. With this view he detached Papenheim and his division to make their way into Westphalia, and prepared to settle down himself where he was with some 12,000 or 14,000 men.

Papenheim set out on the 4th of November (O. S.), and Gustavus heard of it directly. The latter was then manœuvring to the south of Leipzic with a view to his junction with the Duke of Luenburg, somewhere in the neighborhood of Grimma; but this purpose he abandoned at once. He knew Wallenstein's strength to a man, and he himself had 20,000 excellent soldiers well in hand,—a superiority of not less than 7,000 men. Every hour, indeed, would increase his advantage—widening the distance between Papenheim and his chief on the one side, and bringing up his own re-enforcements on the other. But every hour, too, would enable Wallenstein to seize and strengthen one of those formidable positions which he knew so well how to choose. And this great consideration, in conjunction with the Norseman's thirst for battle, decided Gustavus to fight at once.

It is not now our intention to go into the deeply interesting details of that fearful day. Not that we are satisfied with them as they are told; but the renown, and therefore the story, belongs to another. Still it was a noble thing to maintain such a field doubtful to the last, with 12,000 men against full 20,000. And though Wallenstein made no great figure in the action, he merits no little praise for choosing such valiant captains and infusing such stubborn spirit into his columns.

Lutzen was lost. But lost as it was, that battle saved the empire, and from Wallenstein no less than from Gustavus. Now that the terrible Swede was dead, the equally terrible Friedländer ceased to be indispensable, and he knew it. From that hour forth began a struggle for life and death between the warrior and the court—each plotting to destroy as the only means of escaping destruction. But at the outset Wallenstein had the advantage. He was too strong in the devotion of his army to be openly assailed. Scanning the political expanse with a glance as sure as that which he brought to bear on the operations of war, he counselled the Emperor to magnanimity; but nobody at Vienna was prepared to be magnanimous. The court was not ready to redeem its pledges to the General; the courtiers were not ready to give up their share of the confiscation; and the bigots were not ready to abandon their intolerance. And so the war went on.

Baffled in this effort to harmonize his own interests with those of the empire, Wallenstein resumed the plottings of his retirement; but he was no longer so impenetrable as of old. True, he never committed himself in writing, and employed only the trustiest agents—men devoted heart and soul to his interests, because these were altogether their own. But in anticipation of the conflict, the court this time had taken care to surround him with men devoted to itself—skilful warriors, able negotiators, utterly devoid of conscience—men who bowed and flattered and truckled to the haughty Friedländer, until he trusted them like

brothers. Gallas, Altringer, and Piccolomini, all these generals who had joined him from the eminently loyal and Catholic army of Tilly, were the agents of the court, and under their supervision a profound system of espionage was organized and maintained around the General. The very confessional was brought into requisition, and more than one unscrupulous monk gained a mitre by betraying its secrets. Wallenstein's movements were watched by a hundred eyes, and his agents were dogged step by step to the various courts and back again. These men were beyond the reach of bribery indeed, and they never carried dispatches. But the fact of treasonable negotiations was clearly established, and that was much; and foreign potentates, being less skilful than Wallenstein in selecting their ministers, and incomparably less successful in securing their fidelity, something of the drift of these negotiations was soon elicited. Ferdinand charged his General with these treaties. "Yes," said Wallenstein, unblushingly, "I treat, but it is wholly in your interest." And revealing as much of the matter as suited him for the time, he continued the game.

But if he negotiated, it was always sword in hand. A few months had made good the losses of Lutzen. His army, through the whole of 1633, continued the most numerous and the best appointed in the field. He kept it comparatively idle, indeed, while the other belligerents wore themselves out in the strife. But now and then he made a dashing march, and dealt a heavy blow with all his ancient skill and vigor. In this way he confounded his enemies at court, kept his battalions from rusting, and showed unmistakably to all whom it might concern that he was still the same terrible Wallenstein as ever. Three armies entered Silesia together. Wallenstein marched thither and barred their path. He negotiated with the leaders, and through them with their principals. But finding the negotiations hang fire, he let his columns loose; separated and deceived his several foes by strategy so refined as barely to escape the imputation of treachery; captured a whole division of Swedes; and then sweeping forward in one of his old torrent-like rushes, he thrust one division far into Brandenburg, and led another himself across Saxony, seizing and garrisoning the strongholds in his path. Thus time went on. The end of 1633 approached, and with it the consummation of all his plottings. France had long been gained, Saxon and Prussian would follow the lead of Oxenstiern, and the last heavy strokes—showing clearly what Wallenstein could accomplish for the Emperor, did it please him to put on the lion—had bent the cautious Swede at last to his proposals. Keeping a stern hold of the places he had won, the Friedländer gathered the army back into Bohemia towards the end of November, and dispersed it in quarters until the opening spring should rouse it to the campaign that was to ruin the House of Habsburg and place a crown upon his head.

But the court had not been idle. Every man in his ranks, from the general to the merest sentinel, had been profoundly studied, and thousands had been corrupted: the honest and honorable, by playing upon their patriotism, their loyalty, and their religious feelings; the vainglorious, by titles and promotion; and the sordid, by the splendid prizes which the approaching ruin would afford. Nor was Wallenstein, on his side, chary of gift and promise. Always open-handed, he was now more liberal than ever; and his promises were as limitless as his expectations. These things had served him to a marvel on former occasions, and he had not the smallest fear that they would fail him now. The hour of action was about to strike. All was ready without, nothing remained but to test the fidelity of his officers. To this end the Generals were assembled at Pilsen, his headquarters, on the 12th of January, 1634. That evening, Illo, one of Wallenstein's three confidants, gave a banquet, and every man was there. When the guests were warm with wine, the announcement so powerful two years before was repeated. Wallenstein, declared Illo, had determined to resign. The Italians and Spaniards who crowded the court had driven him to take this step. No native German could serve his country under such men. For his own part, the speaker avowed himself not merely indignant, but furious—as he ought to be—at these foreign factions: furious for the sake of his country, thus

again exposed to ruin; for the sake of their benefactor, thus repaid for his great sacrifices and unparalleled services; and, finally, for the loss of those great sums which he, Illo, like so many others, had invested, or, as it appeared, thrown away in these wars. Terski, and one or two others, emulated Illo's eloquence; and the traitors, of whom many were present, were compelled to chime in. A deputation was instantly chosen and dispatched to entreat the great chief not to abandon his children; and the great chief reluctantly consented to remain at the head of his happy family. Then followed the signing of that document which pledged them to serve Wallenstein to the last gasp, and to pursue his enemies to the death. There was a hitch or two, indeed, in connection with this affair; but these were slurred over sufficiently to satisfy the party chiefly concerned. Then and there Wallenstein issued his final orders for the concentration of the army at Prague by the 24th of February, and dismissed the Generals to their several commands.

Piccolomini's messenger sped to court with the tidings of these proceedings, and the moment he arrived the Council assembled. But not to deliberate on the crisis or contrive the measures to meet it. All this had been provided for long before. The principal business on this occasion seems to have been to settle the doom of the culprit, and several valuable hours were wasted in discussing it. At last the Spanish Ambassador cut short the unprofitable talk. "Why all this bother," said he, "about a trifle that a stab or a shot will so easily settle at any moment." The decrees and orders so long prepared were then issued to those entrusted with their execution, Gallas and Piccolomini—Altringer being then on his way to Vienna; and the Council adjourned. These decrees, dated January 24th, removed Wallenstein from his command, placed himself and his confidants beyond the pale of the law, and entrusted the direction of the army to Gallas. But for full three weeks longer Ferdinand continued to write to Wallenstein in the usual strain, addressing him as "Illustrious," "Dear," "Uncle" and "Friend," "Prince," and so forth.

And Piccolomini admirably seconded the Emperor in blinding the doomed chief. A liking, originated by some casual coincidences as to birth, &c., had been deepened by the more than Italian duplicity of the object, until, towards the close of his career, the Friedländer had come to regard Piccolomini as a sort of second self. He trusted him implicitly, and kept him always about him. And the Italian made use of his position to withhold every messenger and dispatch likely to alarm him from the General's notice. It was a dangerous game, and required courage and dexterity and watchfulness not less consummate than treachery itself; for the slightest bungling or relaxation must have resulted in discovery and a terrible death. Such a part, so well played, in a worthy cause, would have won the man an heroic reputation. Meanwhile his confederates were busy seducing the army, and by the 13th of February they found themselves strong enough to seize Budweis, Tabor, and Prague in the Emperor's name. The news of this released Piccolomini from his perilous duty, and his flight roused Wallenstein at last. But, utterly unaware of the events of the last three weeks, the General was not less confident than wrathful. He resented the Italian's treachery; deeply resented it; but he did not dread it. He was ready to strike. This event, far from deranging his plans, merely precipitated them by a few hours; and his march would follow too close on the disclosure for the court to profit much—at least so he thought. Terski was directed to start at once and secure Prague; and similar measures were taken with respect to the other fortresses. Messengers also were sped off, some to hasten up the Swedes, and others to remove the troops that barred the passes in their way, or to apprise distant and trusty friends that rebellion had begun. But in a few short hours Terski and others were back again at Pilsen with terrible intelligence. The fortresses were already secured for the Emperor. Gallas had interposed with a strong force between Pilsen and Duke Bernard of Saxe-Weimar at Ratisbon; Piccolomini was speeding up from Linz with a brigade to seize the persons of the traitors—for as such an Imperial proclamation had by this time denounced the Friedländer and his confidants; and last and worst intelligence of all, the troops

at hand were deserting by wholesale! Any moment might bring the Italian, and the vengeance that he marched with, upon them. So there was no resource but flight.

They fled, and fast. Mustering a few regiments, they took the route to Egra—the only one now open—dispatching courier after courier, thirteen in all, as they hurried along, to apprise Duke Bernard of their situation, and entreat assistance. Their escort consisted of 200 foot and ten troops of dragoons; but five of the latter deserted as they issued from the town. Close to their first stage, Mies, a town that belonged to Illo, they met Colonel Walter Butler and his regiment of dragoons, on the march from Kladrup to Pilsen, in accordance with the orders of Wallenstein, who meant thus to clear the way before the Swedes on all sides. Butler and his squadrons were pressed into the service of the fugitive chief. Lest the men should desert, they were compelled to march in front; whilst Wallenstein endeavored to gain their chief by unwonted attentions and golden promises. But Butler was deep in the secrets of the court, and on reaching Plan—the second stage of that strange journey—he managed to dispatch Father Taafe, his chaplain, with a letter to Gallas or Piccolomini, whichever he happened to meet first, signifying that the writer was compelled to accompany Wallenstein against his will; but adding the significant postscript, that perhaps Providence thus intended to give him an opportunity to do a deed that should "gild his humble name." At Plan they met Major Leslie, who had been sent to meet them by Colonel Gordon, the commandant of Egra. This last town they reached on the afternoon of Friday, the 24th of February. That night, Gordon, Leslie, and Butler met secretly in the citadel, arranged their plans, and swore *on a sword-blade* to remove Wallenstein. The next day, at noon, Terski gave an entertainment, and Gordon returned it by another at night, in the citadel. Thither came Leslie, Butler, and Gordon, on the one side, and Illo, Kinski, Terski, and a certain Captain Neuman, on the other. They were very merry, and four of them very rebellious; Neuman especially boasting that he would soon wash his hands in Habsburg blood. Nine o'clock struck, and at the stroke a messenger entered with a dispatch, pretended to have been intercepted. It seemed to bear the signature of the Elector of Saxony, and discussed, with small favor, Wallenstein's projects. Gordon read it, and handed it to his companions. When all had perused it, they proceeded to discuss it. To do this with the greater freedom, Gordon stood up, and ordered the servants to leave the room. He had scarcely spoken when a door opened on each side of the hall, and in poured two armed bands. "Prosperity to the House of Austria," exclaimed Captain Geraldine, the leader of one party. "Who is for the Emperor? who is for the Emperor?" shouted Captains Macdonald and Devereux, at the head of the other. "Long live Ferdinand!" exclaimed Butler, Gordon, and Leslie, drawing their swords; and, snatching each a candle from the table, they ranged themselves by the wall, to light the murderers to their work. The latter—some forty strong—rushed upon their victims, overturning the table as they came on. Kinski died in an instant; and Illo, hampered by the table, made but a faint resistance. But Terski, a renowned swordsman, offered a desperate defence. Setting his back against the wall, the assailants, one after another, fell before his thrusts, while his good buff coat turned every one of theirs aside. "He is *gefrorn!*" exclaimed the assassins, drawing back at length; and, as they did so, some one among them flung a heavy candestick at his head, and brought him to the floor, where he was dispatched by a dagger-thrust through the eye. Neuman, slightly wounded at the commencement of the affray, attempted to escape by a desperate leap through a window, but was intercepted in the courtyard, and killed there. The dragoons stripped the bodies, which were then locked up in the bloody hall, until the work was completed. Nor was there any delay over that. Gordon remained to guard the citadel, Leslie went to the principal alarm-post, and Butler, accompanied by Devereux and his trusty band, betook himself to Wallenstein's quarters—the Burgomaster's house, which still remains at the east end of the market-place. It was a dark, dismal, rainy night, and the dis-

tant shrieks of Kinski's and Terski's widows, just then apprised of their husbands' death, came by fits and starts upon the blast, causing more than one of Butler's men to shudder as they were posted about the house. Devereux, who was to strike the stroke, took twelve dragoons and stole round to the back door. This he forced with a dexterity which spoke well for his acquaintance with the burglar's craft. Leaving six of his men at the door, and accompanied by the other six, he crept quietly up the stairs, and along the corridor, to Wallenstein's chamber, over the front entrance. There he met the valet, who had just taken the Duke his usual sleeping-draught, a tankard of beer. "Hush!" said the valet, placing his finger on his lip, and pointing to the door. "The key, the key!" growled Devereux, with an oath; and, as the key was not instantly forthcoming, he drove his sword through the servant, who fell with the weapon in his body. Snatching a partisan from one of his followers, Devereux put his shoulder to the door, and burst it open. There, right before him, stood Wallenstein, in his shirt, leaning against a table. "Die, rogue—die!" yelled the Irishman, lowering his weapon. No word escaped the Friedländer, no shiver shook him, nor did he draw back an inch. Looking the murderer straight in the face, he opened wide his arms to the thrust, and fell without a groan.

Scores upon scores of his confederates met a similar fate. Piccolomini hanged twenty-four of his colonels at once at Pilsen; and thus the conspiracy was crushed out. Wallenstein's immense estates enriched his destroyers. Each of the Generals received a large share, Piccolomini the largest, though for a while he was much blamed at court for plundering Wallenstein's treasury at Pilsen very much like a brigand. The actual butchers were liberally rewarded —Butler and Leslie in particular being enriched and ennobled.

Chambers's Journal.

ONLY SEVEN YEARS OLD WHEN SHE DIED.

Only seven years old when she died!
Surely the angels must love her dearly!
Bright golden-haired and violet-eyed,
None could e'er look on her face severely!
There are children as many as the flowers,
But never was one more sweet than ours,
The latest bud on an aged tree
Where never blossom again may be.
Once I held up my head with the best,
Crowned with three flowers of promise bright;
Two—two of the fairest—Death tore from my breast,
Five years ago, in the self-same night.
She was the only one left to me,
And I prayed with groans of agony
That burst from my heart, a mingled prayer
Of hope and doubting and black despair,
That He who doth wisely whatever betide,
Would be willing to leave her aye by my side,
Still blessing her richly with increase of days.
It may be He heard me—but ah! His ways
Are not as ours—from the heavenly place
Perhaps she lighteneth our life with grace.

Only seven years old when she died!
Yet the hopes of two lifetimes died with her!
We have not a wish in the world wide
Save that we had gone out on the tide with her!
The tide that has borne them all away,
Sybil and Avis, now little May;
The ebb that never knows turn or flow
However the full moons come or go!
But I would not murmur—no complaint
Breaks from the lips, asleep or awake,
Of the mother who bore them, making a feint
Of being content for my love's sake.
But sometimes her hand clings to her heart,
And at certain hours she sits apart;
And the golden light of sunset skies
Brings a far-off look into her eyes;
And I fear me much that her treasure in heaven
Her heart from its earth-hold has almost riven,
And soon, hearing the voice of her children three,
She, too, will drift out to that unknown sea—
"The sea of glass" for her it should be—
God help me! what then will become of me!

Only seven years old when she died!
How our old hearts took young delight in her,
Our only pleasure, our hope, our pride!
Well! He who made her had the most right in her!
We took her from Him thanksgivingly;
We gave her back—no, not willingly,
But not with repining—God forbid!
Yet I think He pardons that we did
Falter awhile and fail in our praise,
Missing the key to which it was set
For a sweet child-treble in happier days.
The old tune haunts our memory yet,
And we scarce can read, for tears, the page
Of blessings left to our altered age.
Our "lines," once "fallen in pleasant places,"
Blankly stare in our darkened faces,
And our harps on the willows of grief hang low;
But God, omniscient, has known what we know.
Once the harpings of Heaven ceased suddenly,
And His heart was thrilled by a bitter cry—
The cry of His Son's last agony:
He knows what we felt when we saw her die.

Only seven years old when she died!
Passed from the earth ere she learned its history!
Now she stands up with the glorified,
Fully as wise in the heavenly mystery
As they who through great tribulation
Fought their way up from every nation,
Leavened the world with their life-blood warm,
Carried the kingdom of God by storm.
Sometimes still they talk of their story—
How they suffered, and conquered, and died;
Cleft a path on through the cloud to the glory·
She stands listening, wondering-eyed.
Nought *she* knew of toil or endeavor—
Mother's arms were around her ever;
Little of sorrow, doubt, or despair.
Half she questions her right to be there—
She who has nothing either suffered or done;
Till, suddenly smiling, she looks to the Son,
And, folding her pretty hands reverently,
Lisps out her child-creed most confidently—
The same she learned at her mother's knee—
"He said: 'Let the little ones come to me.'"

Only seven years old when she died!
Seventy long years, yea, and more years still,
We have clambered and clung to the side—
She stands even now at the top of the hill,
Bright, in the beams of the morning light!
Ours, at the best, is a starry night.
We toil on through the dust and the heat;
She sitteth calm at the Master's feet
Reading the truth of His lovelit face;
Answering Him back glad smile for smile.
We tremblingly shriek out for grace—"Lord! more grace!"
Dreading to meet His look all the while,
So spotted our souls, and moiled with sin.
She shows stainless without and within—
A snow-white soul in a robe like snow.
Weary, and wayworn, and sad we go,
Sorely doubting if, after our course be run,
Our life-lasting tourney well battled and done,
When the Judge stands up the awards to divide,
We shall be worthy to stand by her side,
Whose sword was ne'er fleshed, whose strength was ne'er tried—
Who was only seven years old when she died!

HE KNEW HE WAS RIGHT.

BY ANTHONY TROLLOPE.

CHAPTER XXIX.

MR. AND MRS. OUTHOUSE.

Both Mr. Outhouse and his wife were especially timid in taking upon themselves the cares of other people. Not on that account is it to be supposed that they were bad or selfish. They were both given much to charity, and bestowed both in time and money more than is ordinarily considered necessary even from persons in their position. But what they gave, they gave away from their own quiet hearth. Had money been wanting to the daughters of his wife's brother, Mr. Outhouse would have opened such small coffer as he had with a free hand. But he would have much preferred that his benevolence should be used in a way that would bring upon him no further responsibility and no questionings from people whom he did not know and could not understand.

The Rev. Oliphant Outhouse had been Rector of St. Diddulph's-in-the-East for the last fifteen years, having married the sister of Sir Marmaduke Rowley,—then simply Mr. Rowley, with a colonial appointment in Jamaica of £120 per annum,—twelve years before his promotion, while he was a curate in one of the populous borough parishes. He had thus been a London clergyman all his life; but he knew almost as little of London society as though he had held a cure in a Westmoreland valley. He had worked hard, but his work had been altogether among the poor. He had no gift of preaching, and had acquired neither reputation nor popularity. But he could work;—and having been transferred because of that capability to the temporary curacy of St. Diddulph's,—out of one diocese into another,—he had received the living from the bishop's hands when it became vacant.

A dreary place was the parsonage of St. Diddulph's-in-the-East for the abode of a gentleman. Mr. Outhouse had not, in his whole parish, a parishioner with whom he could consort. The greatest men around him were the publicans, and the most numerous were men employed in and around the docks. Dredgers of mud, navvies employed on suburban canals, excavators, loaders and unloaders of cargo, cattle drivers, whose driving, however, was done mostly on board ship—such and such like were the men who were the fathers of the families of St. Diddulph's-in-the-East. And there was there, not far removed from the muddy estuary of a little stream that makes its black way from the Essex marshes among the houses of the poorest of the poor into the Thames, a large commercial establishment for turning the carcasses of horses into manure. Messrs.

Flowsem and Blurt were in truth the great people of St. Diddulph's-in-the-East; but the closeness of their establishment was not an additional attraction to the parsonage. They were liberal, however, with their money, and Mr. Outhouse was disposed to think,—custom perhaps having made the establishment less objectionable to him than it was at first,—that St. Diddulph's-in-the-East would be more of a Pandemonium than it now was, if by any sanitary law Messrs. Flowsem and Blurt were compelled to close their doors. "Non olet," he would say with a grim smile when the charitable cheque of the firm would come punctually to hand on the first Saturday after Christmas.

But such a house as his would be, as he knew, but a poor residence for his wife's nieces. Indeed, without positively saying that he was unwilling to receive them, he had, when he first heard of the breaking up of the house in Curzon Street, shown that he would rather not take upon his shoulders so great a responsibility. He and his wife had discussed the matter between them, and had come to the conclusion that they did not know what kind of things might have been done in Curzon Street. They would think no evil, they said; but the very idea of a married woman with a lover was dreadful to them. It might be that their niece was free from blame. They hoped so. And even though her sin had been of ever so deep a dye, they would take her in,—if it were indeed necessary. But they hoped that such help from them might not be needed. They both knew how to give counsel to a poor woman, how to rebuke a poor man,—how to comfort, encourage, or to upbraid the poor. Practice had told them how far they might go with some hope of doing good;—and at what stage of demoralization no good from their hands was any longer within the scope of fair expectation. But all this was among the poor. With what words to encourage such a one as their niece Mrs. Trevelyan,—to encourage her or to rebuke her, as her conduct might seem to make necessary,—they both felt that they were altogether ignorant. To them Mrs. Trevelyan was a fine lady. To Mr. Outhouse, Sir Marmaduke had ever been a fine gentleman, given much to worldly things, who cared more for whist and a glass of wine than for anything else, and who thought that he had a good excuse for never going to church in England because he was called upon, as he said, to show himself in the governor's pew always once on Sundays, and frequently twice, when he was at the seat of his government. Sir Marmaduke manifestly looked upon church as a thing in itself notoriously disagreeable. To Mr. Outhouse it afforded the great events of the week. And Mrs. Outhouse would declare that to hear her husband preach was the greatest joy of her life. It may be understood therefore that though the family connection between the Rowleys and the Outhouses had been kept up with a semblance of affection, it had never blossomed forth into cordial friendship.

When therefore the clergyman at St. Diddulph's received a letter from his niece, Nora, begging him to take her into his parsonage till Sir Marmaduke should arrive in the course of the spring, and hinting also a wish that her uncle Oliphant should see Mr. Trevelyan and if possible arrange that his other niece should also come to the parsonage, he was very much perturbed in spirit. There was a long consultation between him and his wife before anything could be settled, and it may be doubted whether anything would have been settled, had not Mr. Trevelyan himself made his way to the parsonage, on the second day of the family conference. Mr. and Mrs. Outhouse had both seen the necessity of sleeping upon the matter. They had slept upon it, and the discourse between them on the second day was so doubtful in its tone that more sleeping would probably have been necessary had not Mr. Trevelyan appeared and compelled them to a decision.

"You must remember that I make no charge against her," said Trevelyan, after the matter had been discussed for about an hour.

"Then why should she not come back to you?" said Mr. Outhouse, timidly.

"Some day she may,—if she will be obedient. But it cannot be now. She has set me at defiance; and even yet it is too clear from the tone of her letter to me that she thinks that she has been right to do so. How could we live together in

amity when she addresses me as a cruel tyrant?"

"Why did she go away at first?" asked Mrs. Outhouse.

"Because she would compromise my name by an intimacy which I did not approve. But I do not come here to defend myself, Mrs. Outhouse. You probably think that I have been wrong. You are her friend; and to you, I will not even say that I have been right. What I want you to understand is this. She cannot come back to me now. It would not be for my honor that she should do so."

"But, sir,—would it not be for your welfare, as a Christian?" asked Mr. Outhouse.

"You must not be angry with me, if I say that I will not discuss that just now. I did not come here to discuss it."

"It is very sad for our poor niece," said Mrs. Outhouse.

"It is very sad for me," said Trevelyan, gloomily;—"very sad, indeed. My home is destroyed; my life is made solitary; I do not even see my own child. She has her boy with her, and her sister. I have nobody."

"I can't understand, for the life of me, why you should not live together just like any other people," said Mr. Outhouse, whose woman's spirit was arising in her bosom. "When people are married, they must put up with something;—at least, most always." This she added, lest it might be for a moment imagined that she had had any cause for complaint with her Mr. Outhouse.

"Pray excuse me, Mrs. Outhouse; but I cannot discuss that. The question between us is this,—can you consent to receive your two nieces till their father's return;—and if so, in what way shall I defray the expense of their living? You will of course understand that I willingly undertake the expense not only of my wife's maintenance and of her sister's also, but that I will cheerfully allow anything that may be required either for their comfort or recreation."

"I cannot take my nieces into my house as lodgers," said Mr. Outhouse.

"No, not as lodgers; but of course you can understand that it is for me to pay for my own wife. I know I owe you an apology for mentioning it;—but how else could I make my request to you?"

"If Emily and Nora come here they must come as our guests," said Mrs. Outhouse.

"Certainly," said the clergyman. "And if I am told they are in want of a home they shall find one here till their father comes. But I am bound to say that as regards the elder I think her home should be elsewhere."

"Of course it should," said Mrs. Outhouse. "I don't know anything about the law, but it seems to me very odd that a young woman should be turned out in this way. You say she has done nothing?"

"I will not argue the matter," said Trevelyan.

"That's all very well, Mr. Trevelyan," said the lady, "but she's my own niece, and if I don't stand up for her I don't know who will. I never heard such a thing in my life as a wife being sent away after such a fashion as that. We wouldn't treat a cookmaid so; that we wouldn't. As for coming here, she shall come if she pleases, but I shall always say that it's the greatest shame I ever heard of."

Nothing came of this visit at last. The lady grew in her anger; and Mr. Trevelyan, in his own defence, was driven to declare that his wife's obstinate intimacy with Colonel Osborne had almost driven him out of his senses. Before he left the parsonage he was brought even to tears by his own narration of his own misery;—whereby Mr. Outhouse was considerably softened, although Mrs. Outhouse became more and more stout in the defence of her own sex. But nothing at last came of it. Trevelyan insisted on paying for his wife, wherever she might be placed; and when he found that this would not be permitted to him at the parsonage, he was very anxious to take some small furnished house in the neighborhood, in which the two sisters might live for the next six months under the wings of their uncle and aunt. But even Mr. Outhouse was moved to pleasantry by this suggestion, as he explained the nature of the tenements which were common at St. Diddulph's. Two rooms, front and back, they might have for about five-and-sixpence a week in a house with three other families. "But perhaps that is not exactly what you'd like," said Mr. Outhouse. The interview ended with no result, and Mr. Trevelyan took his leave,

declaring to himself that he was worse off than the foxes, who have holes in which to lay their heads;—but it must be presumed that his sufferings in this respect were to be by attorney; as it was for his wife, and not for himself, that the necessary hole was now required.

As soon as he was gone Mrs. Outhouse answered Nora's letter, and without meaning to be explicit, explained pretty closely what had taken place. The spare bedroom at the parsonage was ready to receive either one or both of the sisters till Sir Marmaduke should be in London, if one or both of them should choose to come. And though there was no nursery at the parsonage,—for Mr. and Mrs. Outhouse had been blessed with no children,—still room should be made for the little boy. But they must come as visitors,—"as our own nieces," said Mrs. Outhouse. And she went on to say that she would have nothing to do with the quarrel between Mr. Trevelyan and his wife. All such quarrels were very bad,—but as to this quarrel she could take no part either one side or the other. Then she stated that Mr. Trevelyan had been at the parsonage, but that no arrangement had been made, because Mr. Trevelyan had insisted on paying for their board and lodging.

This letter reached Nuncombe Putney before any reply was received by Mrs. Trevelyan from her husband. This was on the Saturday morning, and Mrs. Trevelyan had pledged herself to Mrs. Stanbury that she would leave the Clock House on the Monday. Of course, there was no need that she should do so. Both Mrs. Stanbury and Priscilla would now have willingly consented to their remaining till Sir Marmaduke should be in England. But Mrs. Trevelyan's high spirit revolted against this after all that had been said. She thought that she should hear from her husband on the morrow, but the post on Sunday brought no letter from Trevelyan. On the Saturday they had finished packing up,—so certain was Mrs. Trevelyan that some instructions as to her future destiny would be sent to her by her lord.

At last they decided on the Sunday that they would both go at once to St. Diddulph's; or perhaps it would be more correct to say that this was the decision of the elder sister. Nora would willingly have yielded to Priscilla's entreaties, and have remained. But Emily declared that she could not, and would not, stay in the house. She had a few pounds,—what would suffice for her journey; and as Mr. Trevelyan had not thought proper to send his orders to her, she would go without them. Mrs. Outhouse was her aunt, and her nearest relative in England. Upon whom else could she lean in this time of her great affliction? A letter, therefore, was written to Mrs. Outhouse, saying that the whole party, including the boy and nurse, would be at St. Diddulph's on the Monday evening, and the last cord was put to the boxes.

"I suppose that he is very angry," Mrs. Trevelyan said to her sister, "but I do not feel that I care about that now. He shall have nothing to complain of in reference to any gayety on my part. I will see no one. I will have no—correspondence. But I will not remain here after what he has said to me, let him be ever so angry. I declare, as I think of it, it seems to me that no woman was ever so cruelly treated as I have been." Then she wrote one further line to her husband.

"Not having received any orders from you, and having promised Mrs. Stanbury that I would leave this house on Monday, I go with Nora to my aunt, Mrs. Outhouse, to-morrow. E. T."

On the Sunday evening the four ladies drank tea together, and they all made an effort to be civil, and even affectionate, to each other. Mrs. Trevelyan had at last allowed Priscilla to explain how it had come to pass that she had told her brother that it would be better both for her mother and for herself that the existing arrangements should be brought to an end, and there had come to be an agreement between them that they should all part in amity. But the conversation on the Sunday evening was very difficult.

"I am sure we shall always think of you both with the greatest kindness," said Mrs. Stanbury.

"As for me," said Priscilla, "your being with us has been a delight that I cannot describe;—only it has been wrong."

"I know too well," said Mrs Trevelyan, "that in our present circumstances

we are unable to carry delight with us anywhere."

"You hardly understand what our life has been," said Priscilla; "but the truth is that we had no right to receive you in such a house as this. It has not been our way of living, and it cannot continue to be so. It is not wonderful that people should talk of us. Had it been called your house, it might have been better."

"And what will you do now?" asked Nora.

"Get out of this place as soon as we can. It is often hard to go back to the right path; but it may always be done,—or at least attempted."

"It seems to me that I take misery with me wherever I go," said Mrs. Trevelyan.

"My dear, it has not been your fault," said Mrs. Stanbury.

"I do not like to blame my brother," said Priscilla, "because he has done his best to be good to us all;—and the punishment will fall heaviest upon him, because he must pay for it."

"He should not be allowed to pay a shilling," said Mrs. Trevelyan.

Then the morning came, and at seven o'clock the two sisters, with the nurse and child, started for Lessboro' Station in Mrs. Crocket's open carriage, the luggage having been sent on in a cart. There were many tears shed, and any one looking at the party would have thought that very dear friends were being torn asunder.

"Mother," said Priscilla, as soon as the parlor door was shut, and the two were alone together, "we must take care that we never are brought again into such a mistake as that. They who protect the injured should be strong themselves."

CHAPTER XXX.

DOROTHY MAKES UP HER MIND.

It was true that most ill-natured things had been said at Lessboro' and at Nuncombe Putney about Mrs. Stanbury and the visitors at the Clock House, and that these ill-natured things had spread themselves to Exeter. Mrs. Ellison of Lessboro', who was not the most good-natured woman in the world, had told Mrs. Merton of Nuncombe that she had been told that the Colonel's visit to the lady had been made by express arrangement between the Colonel and Mrs. Stanbury. Mrs. Merton, who was very good-natured, but not the wisest woman in the world, had declared that any such conduct on the part of Mrs. Stanbury was quite impossible. "What does it matter which it is,—Priscilla or her mother?" Mrs. Ellison had said. "These are the facts. Mrs. Trevelyan has been sent there to be out of the way of this Colonel; and the Colonel immediately comes down and sees her at the Clock House. But when people are very poor they do get driven to do almost anything."

Mrs. Merton, not being very wise, had conceived it to be her duty to repeat this to Priscilla; and Mrs. Ellison, not being very good-natured, had conceived it to be hers to repeat it to Mrs. MacHugh at Exeter. And then Bozzle's coming had become known.

"Yes, Mrs. MacHugh, a policeman in mufti down at Nuncombe! I wonder what our friend in the Close here will think about it! I have always said, you know, that if she wanted to keep things straight at Nuncombe, she should have opened her purse-strings."

From all which it may be understood, that Priscilla Stanbury's desire to go back to their old way of living had not been without reason.

It may be imagined that Miss Stanbury of the Close did not receive with equanimity the reports which reached her. And, of course, when she discussed the matter either with Martha or with Dorothy, she fell back upon her own early appreciation of the folly of the Clock House arrangement. Nevertheless, she had called Mrs. Ellison very bad names, when she learned from her friend Mrs. MacHugh what reports were being spread by the lady from Lessboro'.

"Mrs. Ellison! Yes; we all know Mrs. Ellison. The bitterest tongue in Devonshire, and the falsest! There are some people at Lessboro' who would be well pleased if she paid her way there as well as those poor women do at Nuncombe. I don't think much of what Mrs. Ellison says."

"But it is bad about the policeman," said Mrs. MacHugh.

"Of course it's bad. It's all bad. I'm not saying that it's not bad. I'm glad I've got this other young woman

out of it. It's all that young man's doing. If I had a son of my own, I'd sooner follow him to the grave than hear him call himself a Radical."

Then, on a sudden, there came to the Close news that Mrs. Trevelyan and her sister were gone. On the very Monday on which they went, Priscilla sent a note on to her sister, in which no special allusion was made to Aunt Stanbury, but which was no doubt written with the intention that the news should be communicated.

"Gone; are they? As it is past wishing that they hadn't come, it's the best thing they could do now. And who is to pay the rent of the house, now they have gone?" As this was a point on which Dorothy was not prepared to trouble herself at present, she made no answer to the question.

Dorothy at this time was in a state of very great perturbation on her own account. The reader may perhaps remember that she had been much startled by a proposition that had been made to her in reference to her future life. Her aunt had suggested to her that she should become—Mrs. Gibson. She had not as yet given any answer to that proposition, and had indeed found it to be quite impossible to speak about it at all. But there can be no doubt that the suggestion had opened out to her altogether new views of life. Up to the moment of her aunt's speech to her, the idea of her becoming a married woman had never presented itself to her. In her humility it had not occurred to her that she should be counted as one among the candidates for matrimony. Priscilla had taught her to regard herself,—indeed, they had both so regarded themselves,—as born to eat and drink, as little as might be, and then to die. Now, when she was told that she could, if she pleased, become Mrs. Gibson, she was almost lost in a whirl of new and confused ideas. Since her aunt had spoken, Mr. Gibson himself had dropped a hint or two which seemed to her to indicate that he also must be in the secret. There had been a party, with a supper, at Mrs. Crumbie's, at which both the Miss Frenches had been present. But Mr. Gibson had taken her, Dorothy Stanbury, out to supper, leaving both Camilla and Arabella behind him in the drawing-room! During the quarter of an hour afterwards in which the ladies were alone while the gentlemen were eating and drinking, both Camilla and Arabella continued to wreak their vengeance. They asked questions about Mrs. Trevelyan, and suggested that Mr. Gibson might be sent over to put things right. But Miss Stanbury had heard them, and had fallen upon them with a heavy hand.

"There's a good deal expected of Mr. Gibson, my dears," she said, "which it seems to me Mr. Gibson is not inclined to perform."

"It is quite indifferent to us what Mr. Gibson may be inclined to perform," said Arabella. "I'm sure we shan't interfere with Miss Dorothy."

As this was said quite out loud before all the other ladies, Dorothy was overcome with shame. But her aunt comforted her when they were again at home.

"Laws, my dear; what does it matter? When you're Mrs. Gibson, you'll be proud of it all."

Was it then really written in the book of the fates that she, Dorothy Stanbury, was to become Mrs. Gibson? Poor Dorothy began to feel that she was called upon to exercise an amount of thought and personal decision to which she had not been accustomed. Hitherto, in the things which she had done, or left undone, she had received instructions which she could obey. Had her mother and Priscilla told her positively not to go to her aunt's house, she would have remained at Nuncombe without complaint. Had her aunt since her coming given her orders as to her mode of life,—enjoined, for instance, additional church attendances, or desired her to perform menial services in the house,—she would have obeyed, from custom, without a word. But when she was told that she was to marry Mr. Gibson, it did seem to her to be necessary to do something more than obey. Did she love Mr. Gibson? She tried hard to teach herself to think that she might learn to love him. He was a nice-looking man enough, with sandy hair, and a head rather bald, with thin lips, and a narrow nose, who certainly did preach drawling sermons; but of whom everybody said that he was a very excellent clergyman. He had a house and an income, and all Exeter had long

since decided that he was a man who would certainly marry. He was one of those men of whom it may be said that they have no possible claim to remain unmarried. He was fair game, and unless he surrendered himself to be bagged before long, would subject himself to just and loud complaint. The Miss Frenches had been aware of this, and had thought to make sure of him among them. It was a little hard upon them that the old maid of the Close, as they always called Miss Stanbury, should interfere with them when their booty was almost won. And they felt it to be the harder because Dorothy Stanbury was, as they thought, so poor a creature. That Dorothy herself should have any doubt as to accepting Mr. Gibson, was an idea that never occurred to them. But Dorothy had her doubts. When she came to think of it, she remembered that she had never as yet spoken a word to Mr. Gibson, beyond such little trifling remarks as are made over a tea-table. She might learn to love him, but she did not think that she loved him as yet.

"I don't suppose all this will make any difference to Mr. Gibson," said Miss Stanbury to her niece, on the morning after the receipt of Priscilla's note stating that the Trevelyans had left Nuncombe.

Dorothy always blushed when Mr. Gibson's name was mentioned, and she blushed now. But she did not at all understand her aunt's allusion. "I don't know what you mean, aunt," she said.

"Well, you know, my dear, what they say about Mrs. Trevelyan and the Clock House is not very nice. If Mr. Gibson were to turn round and say that the connection wasn't pleasant, no one would have a right to complain."

The faint customary blush on Dorothy's cheeks which Mr. Gibson's name had produced now covered her whole face even up to the roots of her hair. "If he believes bad of mamma, I'm sure, Aunt Stanbury, I don't want to see him again."

"That's all very fine, my dear, but a man has to think of himself, you know."

"Of course he thinks of himself. Why shouldn't he? I dare say he thinks of himself more than I do."

"Dorothy, don't be a fool. A good husband isn't to be caught every day."

"Aunt Stanbury, I don't want to catch any man."

"Dorothy, don't be a fool."

"I must say it. I don't suppose Mr. Gibson thinks of me the least in the world."

"Psha! I tell you he does."

"But as for mamma and Priscilla, I never could like anybody for a moment who would be ashamed of them."

She was most anxious to declare that, as far as she knew herself and her own wishes at present, she entertained no partiality for Mr. Gibson,—no feeling which could become partiality even if Mr. Gibson was to declare himself willing to accept her mother and her sister with herself. But she did not dare to say so. There was an instinct within her which made it almost impossible to her to express an objection to a suitor before the suitor had declared himself to be one. She could speak out as touching her mother and her sister,—but as to her own feelings she could express neither assent nor dissent.

"I should like to have it settled soon," said Miss Stanbury, in a melancholy voice. Even to this Dorothy could make no reply. What did soon mean? Perhaps in the course of a year or two. "If it could be arranged by the end of this week, it would be a great comfort to me." Dorothy almost fell off her chair, and was stricken altogether dumb. "I told you, I think, that Brooke Burgess is coming here?"

"You said he was to come some day."

"He is to be here on Monday. I haven't seen him for more than twelve years; and now he's to be here next week! Dear, dear! When I think sometimes of all the hard words that have been spoken, and the harder thoughts that have been in people's minds, I often regret that the money ever came to me at all. I could have done without it, very well,—very well."

"But all the unpleasantness is over now, aunt."

"I don't know about that. Unpleasantness of that kind is apt to rankle long. But I wasn't going to give up my rights. Nobody but a coward does that. They talked of going to law and trying the will, but they wouldn't have got much by that. And then they abused me for two years. When they had done

and got sick of it, I told them they should have it all back again as soon as I am dead. It won't be long now. This Burgess is the elder nephew, and he shall have it all."

"Is not he grateful?"

"No. Why should he be grateful? I don't do it for special love of him. I don't want his gratitude; nor anybody's gratitude. Look at Hugh. I did love him."

"I am grateful, Aunt Stanbury."

"Are you, my dear? Then show it by being a good wife to Mr. Gibson, and a happy wife. I want to get everything settled while Burgess is here. If he is to have it, why should I keep him out of it whilst I live? I wonder whether Mr. Gibson would mind coming and living here, Dolly?"

The thing was coming so near to her that Dorothy began to feel that she must, in truth, make up her mind, and let her aunt know also how it had been made up. She was sensible enough to perceive that if she did not prepare herself for the occasion she would find herself hampered by an engagement simply because her aunt had presumed that it was out of the question that she should not acquiesce. She would drift into marriage with Mr. Gibson against her will. Her greatest difficulty was the fact that her aunt clearly had no doubt on the subject. And as for herself, hitherto her feelings did not, on either side, go beyond doubts. Assuredly it would be a very good thing for her to become Mrs. Gibson, if only she could create for herself some attachment for the man. At the present moment her aunt said nothing more about Mr. Gibson, having her mind much occupied with the coming of Mr. Brooke Burgess.

"I remember him twenty years ago and more; as nice a boy as you would wish to see. His father was the fourth of the brothers. Dear, dear! Three of them are gone; and the only one remaining is old Barty, whom no one ever loved."

The Burgesses had been great people in Exeter, having been both bankers and brewers there, but the light of the family had paled; and though Bartholomew Burgess, of whom Miss Stanbury declared that no one had ever loved him, still had a share in the bank, it was well understood in the city that the real wealth in the firm of Cropper and Burgess, belonged to the Cropper family. Indeed, the most considerable portion of the fortune that had been realized by old Mr. Burgess had come into the hands of Miss Stanbury herself. Bartholomew Stanbury had never forgiven his brother's will, and between him and Jemima Stanbury the feud was irreconcilable. The next brother, Tom Burgess, had been a solicitor at Liverpool, and had done well there. But Miss Stanbury knew nothing of the Tom Burgesses as she called them. The fourth brother, Harry Burgess, had been a clergyman, and this Brooke Burgess, Junior, who was now coming to the Close, had been left with a widowed mother, the eldest of a large family. It need not now be told at length how there had been ill-blood also between this clergyman and the heiress. There had been attempts at friendship, and at one time Miss Stanbury had received the Rev. Harry Burgess and all his family at the Close;—but the attempts had not been successful; and though our old friend had never wavered in her determination to leave the money all back to some one of the Burgess family, and with this view had made a pilgrimage to London some twelve years since, and had renewed her acquaintance with the widow and the children, still there had been no comfortable relations between her and any of the Burgess family. Old Barty Burgess, whom she met in the Close, or saw in the High Street every day of her life, was her great enemy. He had tried his best,—so at least she was convinced,—to drive her out of the pale of society, years upon years ago, by saying evil things of her. She had conquered in that combat. Her victory had been complete, and she had triumphed after a most signal fashion. But this triumph did not silence Barty's tongue, nor soften his heart. When she prayed to be forgiven, as she herself forgave others, she always exempted Barty Burgess from her prayers. There are things which flesh and blood cannot do. She had not liked Harry Burgess' widow, nor, for the matter of that, Harry Burgess himself. When she had last seen the children she had not liked any of them much, and had had her doubts even as to Brooke.

But with that branch of the family she was willing to try again. Brooke was now coming to the Close, having received, however, an intimation, that if, during his visit to Exeter, he chose to see his Uncle Barty, any such intercourse must be kept quite in the background. While he remained in Miss Stanbury's house he was to remain there as though there were no such person as Mr. Bartholomew Burgess in Exeter.

At this time Brooke Burgess was a man just turned thirty, and was a clerk in the Ecclesiastical Record Office, in Somerset House. No doubt the peculiar nature and name of the public department to which he was attached had done something to recommend him to Miss Stanbury. Ecclesiastical records were things greatly to be reverenced in her eyes, and she felt that a gentleman who handled them and dealt with them would probably be sedate, gentlemanlike, and conservative. Brooke Burgess, when she had last seen him, was just about to enter upon the duties of the office. Then there had come offence, and she had in truth known nothing of him from that day to this. The visitor was to be at Exeter on the following Monday, and very much was done in preparation of his coming. There was to be a dinner party on that very day, and dinner parties were not common with Miss Stanbury. She had, however, explained to Martha that she intended to put her best foot forward. Martha understood perfectly that Mr. Brooke Burgess was to be received as the heir of property. Sir Peter Mancrudy, the great Devonshire chemist, was coming to dinner, and Mr. and Mrs. Powel from Haldon,—people of great distinction in that part of the county,—Mrs. MacHugh, of course; and, equally of course, Mr. Gibson. There was a deep discussion between Miss Stanbury and Martha as to asking two of the Cliffords, and Mr. and Mrs. Noel from Doddiscombeleigh. Martha had been very much in favor of having twelve. Miss Stanbury had declared that with twelve she must have two waiters from the greengrocer's, and that two waiters would overpower her own domesticities below stairs. Martha had declared that she didn't care about them any more than if they were puppy dogs. But Miss Stanbury had been quite firm against twelve. She had consented to have ten,—for the sake of artistic arrangement at the table; "They should be pantaloons and petticoats alternate, you know," she had said to Martha,—and had therefore asked the Cliffords. But the Cliffords could not come, and then she had declined to make any further attempt. Indeed, a new idea had struck her. Brooke Burgess, her guest, should sit at one end of the table, and Mr. Gibson, the clergyman, at the other. In this way the proper alternation would be effected. When Martha heard this, Martha quite understood the extent of the good fortune that was in store for Dorothy. If Mr. Gibson was to be welcomed in that way, it could only be in preparation of his becoming one of the family.

And Dorothy herself became aware that she must make up her mind. It was not so declared to her, but she came to understand that it was very probable that something would occur on the coming Monday which would require her to be ready with her answer on that day. And she was greatly tormented by feeling that if she could not bring herself to accept Mr. Gibson,—should Mr. Gibson propose to her, as to which she continued to tell herself that the chance of such a thing must be very remote indeed,—but that if he should propose to her, and if she could not accept him, her aunt ought to know that it would be so before the moment came. But yet she could not bring herself to speak to her aunt as though any such proposition were possible.

It happened that during the week, on the Saturday, Priscilla came into Exeter. Dorothy met her sister at the railway station, and then the two walked together two miles and back along the Crediton Road. Aunt Stanbury had consented to Priscilla coming to the Close, even though it was not the day appointed for such visits; but the walk had been preferred, and Dorothy felt that she would be able to ask for counsel from the only human being to whom she could have brought herself to confide the fact that a gentleman was expected to ask her to marry him. But it was not till they had turned upon their walk, that she was able to open her mouth on the subject even to her sister. Priscilla had been

very full of their own cares at Nuncombe, and had said much of her determination to leave the Clock House and to return to the retirement of some small cottage. She had already written to Hugh to this effect, and during their walk had said much of her own folly in having consented to so great a change in their mode of life. At last Dorothy struck in with her story.

"Aunt Stanbury wants me to make a change too."

"What change?" asked Priscilla, anxiously.

"It is not my idea, Priscilla, and I don't think that there can be anything in it. Indeed, I'm sure there isn't. I don't see how it's possible that there should be."

"But what is it, Dolly?"

"I suppose there can't be any harm in my telling you."

"If it's anything concerning yourself, I should say not. If it concerns Aunt Stanbury, I dare say she'd rather you held your tongue."

"It concerns me most," said Dorothy.

"She doesn't want you to leave her, does she?"

"Well,—yes—no. By what she said last,—I shouldn't leave her at all in that way. Only I'm sure it's not possible."

"I am the worst hand in the world, Dolly, at guessing a riddle."

"You've heard of that Mr. Gibson, the clergyman;—haven't you?"

"Of course I have."

"Well——. Mind, you know, it's only what Aunt Stanbury says. He has never so much as opened his lips to me himself, except to say, 'How do you do?' and that kind of thing."

"Aunt Stanbury wants you to marry him?"

"Yes!"

"Well?"

"Of course it's out of the question," said Dorothy, sadly.

"I don't see why it should be out of the question," said Priscilla, proudly. "Indeed, if Aunt Stanbury has said much about it, I should say that Mr. Gibson himself must have spoken to her."

'Do you think he has?"

"I do not believe that aunt would raise false hopes," said Priscilla.

"But I haven't any hopes. That is to say, I had never thought about such a thing."

"But you think about it now, Dolly?"

"I should never have dreamed about it, only for Aunt Stanbury."

"But, dearest, you are dreaming of it now, are you not?"

"Only because she says that it is to be so. You don't know how generous she is. She says that if it should be so, she will give me ever so much money;—two thousand pounds!"

"Then I am quite sure that she and Mr. Gibson must understand each other."

"Of course," said Dorothy, sadly, "if he were to think of such a thing at all, it would only be because the money would be convenient."

"Not at all," said Priscilla, sternly,—with a sternness that was very comfortable to her listener. "Not at all. Why should not Mr. Gibson love you as well as any man ever loved any woman? You are nice-looking,"—Dorothy blushed beneath her hat even at her sister's praise,—"and good-tempered, and lovable in every way. And I think you are just fitted to make a good wife. And you must not suppose, Dolly, that because Mr. Gibson wouldn't perhaps have asked you without the money, that therefore he is mercenary. It so often happens that a gentleman can't marry unless the lady has some money!"

"But he hasn't asked me at all."

"I suppose he will, dear."

"I only know what Aunt Stanbury says."

"You may be sure that he will ask you."

"And what must I say, Priscilla?"

"What must you say? Nobody can tell you that, dear, but yourself. Do you like him?"

"I don't dislike him."

"Is that all?"

"I know him so very little, Priscilla. Everybody says he is very good;—and then it's a great thing, isn't it, that he should be a clergyman?"

"I don't know about that."

"I think it is. If it were possible that I should ever marry any one, I should like a clergyman so much the best."

"Then you do know what to say to him."

"No, I don't, Priscilla. I don't know at all."

"Look here, dearest. What my aunt offers to you is a very great step in life. If you can accept this gentleman I think you would be happy;—and I think, also, which should be of more importance for your consideration, that you would make him happy. It is a brighter prospect, dear Dolly, than to live either with us at Nuncombe, or even with Aunt Stanbury as her niece."

"But if I don't love him, Priscilla?"

"Then give it up, and be as you are, my own, own, dearest sister."

"So I will," said Dorothy, and at that time her mind was made up.

CHAPTER XXXI.

MR. BROOKE BURGESS.

The hour at which Mr. Brooke Burgess was to arrive had come round, and Miss Stanbury was in a twitter, partly of expectation, and partly, it must be confessed, of fear. Why there should be any fear she did not herself know, as she had much to give and nothing to expect. But she was afraid, and was conscious of it, and was out of temper because she was ashamed of herself. Although it would be necessary that she should again dress for dinner at six, she had put on a clean cap at four, and appeared at that early hour in one of her gowns which was not customarily in use for home purposes at that early hour. She felt that she was "an old fool" for her pains, and was consequently cross to poor Dorothy. And there were other reasons for some display of harshness to her niece. Mr. Gibson had been at the house that very morning, and Dorothy had given herself airs. At least, so Miss Stanbury thought. And during the last three or four days, whenever Mr. Gibson's name had been mentioned, Dorothy had become silent, glum, and almost obstructive. Miss Stanbury had been at the trouble of explaining that she was specially anxious to have that little matter of the engagement settled at once. She knew that she was going to behave with great generosity;—that she was going to sacrifice, not her money only, of which she did not think much, but a considerable portion of her authority, of which she did think a great deal; and that she was about to behave in a manner which demanded much gratitude. But it seemed to her that Dorothy was not in the least grateful. Hugh had proved himself to be "a mass of ingratitude," as she was in the habit of saying. None of the Burgesses had ever shown to her any gratitude for promises made to them, or, indeed, for any substantial favors conferred upon them. And now Dorothy, to whom a very seventh heaven of happiness had been opened,—a seventh heaven, as it must be computed in comparison with her low expectations,—now Dorothy was already showing how thankless she could become. Mr. Gibson had not yet declared his passion, but he had freely admitted to Miss Stanbury that he was prepared to do so. Priscilla had been quite right in her suggestion that there was a clear understanding between the clergyman and her aunt.

"I don't think he is come after all," said Miss Stanbury, looking at her watch. Had the train arrived at the moment that it was due, had the expectant visitor jumped out of the railway carriage into a fly, and had the driver galloped up to the Close, it might have been possible that the wheels should have been at the door as Miss Stanbury spoke.

"It's hardly time yet, aunt."

"Nonsense; it is time. The train comes in at four. I daresay he won't come at all."

"He is sure to come, aunt."

"I've no doubt you know all about it better than any one else. You usually do." Then five minutes were passed in silence. "Heaven and earth! what shall I do with these people that are coming? And I told them especially that it was to meet this young man! It's the way I am always treated by everybody that I have about me."

"The train might be ten minutes late, Aunt Stanbury."

"Yes;—and monkeys might chew tobacco. There;—there's the omnibus at the Cock and Bottle; the omnibus up from the train. Now, of course, he won't come."

"Perhaps he's walking, Aunt Stanbury."

"Walking;—with his luggage on his shoulders? Is that your idea of the way in which a London gentleman goes about? And there are two flies,—com-

ing up from the train, of course." Miss Stanbury was obliged to fix the side of her chair very close to the window in order that she might see that part of the Close in which the vehicles of which she had spoken were able to pass.

"Perhaps they are not coming from the train, Aunt Stanbury."

"Perhaps a fiddlestick! You have lived here so much longer than I have done that, of course, you must know all about it." Then there was an interval of another ten minutes, and even Dorothy was beginning to think that Mr. Burgess was not coming. "I've given him up now," said Miss Stanbury. "I think I'll send and put them all off." Just at that moment there came a knock at the door. But there was no cab. Dorothy's conjecture had been right. The London gentleman had walked, and his portmanteau had been carried behind him by a boy. "How did he get here?" exclaimed Miss Stanbury, as she heard the strange voice speaking to Martha downstairs. But Dorothy knew better than to answer the question.

"Miss Stanbury, I am very glad to see you," said Mr. Brooke Burgess, as he entered the room. Miss Stanbury courtesied, and then took him by both hands. "You wouldn't have known me, I daresay," he continued. "A black beard and a bald head do make a difference."

"You are not bald at all," said Miss Stanbury.

"I am beginning to be thin enough at the top. I am so glad to come to you, and so much obliged to you for having me! How well I remember the old room!"

"This is my niece, Miss Dorothy Stanbury, from Nuncombe Putney." Dorothy was about to make some formal acknowledgment of the introduction, when Brooke Burgess came up to her and shook her hand heartily. "She lives with me," continued the aunt.

"And what has become of Hugh?" said Brooke.

"We never talk of him," said Miss Stanbury gravely.

"I hope there's nothing wrong? I hear of him very often in London."

"My aunt and he don't agree;—that's all," said Dorothy.

"He has given up his profession as a barrister,—in which he might have lived like a gentleman," said Miss Stanbury, "and has taken to writing for a—penny newspaper."

"Everybody does that now, Miss Stanbury."

"I hope you don't, Mr. Burgess."

"I! Nobody would print anything that I wrote. I don't write for anything, certainly."

"I'm very glad to hear it," said Miss Stanbury.

Brooke Burgess, or Mr. Brooke, as he came to be called very shortly by the servants in the house, was a good-looking man, with black whiskers and black hair, which, as he said, was beginning to be thin on the top of his head, and pleasant small bright eyes. Dorothy thought that next to her brother Hugh he was the most good-natured looking man she had ever seen. He was rather below the middle height, and somewhat inclined to be stout. But he would boast that he could still walk his twelve miles in three hours, and would add that as long as he could do that he would never recognize the necessity of putting himself on short commons. He had a well-cut nose, not quite aquiline, but tending that way, a chin with a dimple on it, and as sweet a mouth as ever declared the excellence of a man's temper. Dorothy immediately began to compare him with her brother Hugh, who was to her, of all men, the most godlike. It never occurred to her to make any comparison between Mr. Gibson and Mr. Burgess. Her brother Hugh was the most godlike of men; but there was something godlike also about the new-comer. Mr. Gibson, to Dorothy's eyes, was by no means divine.

"I used to call you Aunt Stanbury," said Brooke Burgess to the old lady; "am I to go on doing it now?"

"You may call me what you like," said Miss Stanbury. "Only,—dear me;—I never did see anybody so much altered." Before she went up to dress herself for dinner, Miss Stanbury was quite restored to her good-humor, as Dorothy could perceive.

The dinner passed off well enough. Mr. Gibson at the head of the table, did, indeed, look very much out of his element, as though he conceived that his position revealed to the outer world

those ideas of his in regard to Dorothy, which ought to have been secret for a while longer. There are few men who do not feel ashamed of being paraded before the world as acknowledged suitors, whereas ladies accept the position with something almost of triumph. The lady perhaps regards herself as the successful angler, whereas the gentleman is conscious of some similitude to the unsuccessful fish. Mr. Gibson, though he was not yet gasping in the basket, had some presentiment of this feeling, which made his present seat of honor unpleasant to him. Brooke Burgess, at the other end of the table, was as gay as a lark. Mrs. MacHugh sat on one side of him, and Miss Stanbury on the other, and he laughed at the two old ladies, reminding them of his former doings in Exeter,—how he had hunted Mrs. MacHugh's cat, and had stolen Aunt Stanbury's best apricot jam, till everybody began to perceive that he was quite a success. Even Sir Peter Mancrudy laughed at his jokes, and Mrs. Powel, from the other side of Sir Peter, stretched her head forward, so that she might become of the gay party.

"There isn't a word of it true," said Miss Stanbury. "It's all pure invention, and a great scandal. I never did such a thing in my life."

"Didn't you, though?" said Brooke Burgess. "I remember it as well as if it was yesterday, and old Dr. Ball, the prebendary, with the carbuncles on his nose, saw it too!"

"Dr Ball had no carbuncles on his nose," said Mrs. MacHugh. "You'll say next that I have carbuncles on my nose."

"He had three. I remember each of them quite well, and so does Sir Peter."

Then everybody laughed; and Martha, who was in the room, knew that Brooke Burgess was a complete success.

In the meantime Mr. Gibson was talking to Dorothy; but Dorothy was endeavoring to listen to the conversation at the other end of the table. "I found it very dirty on the roads to day outside the city," said Mr. Gibson.

"Very dirty," said Dorothy, looking round at Mr. Burgess, as she spoke.

"But the pavement in the High Street was dry enough."

"Quite dry," said Dorothy. Then there came a peal of laughter from Mrs. MacHugh and Sir Peter, and Dorothy wondered whether anybody before had ever made those two steady old people laugh after that fashion.

"I should so like to get a drive with you up to the top of Haldon Hill," said Mr. Gibson. "When the weather gets fine, that is. Mrs. Powel was talking about it."

"It would be very nice," said Dorothy.

"You have never seen the view from Haldon Hill yet?" asked Mr. Gibson. But to this question Dorothy could make no answer. Miss Stanbury had lifted one of the table-spoons, as though she was going to strike Mr. Brooke Burgess with the bowl of it. And this during a dinner party! From that moment Dorothy turned herself round, and became one of the listeners to the fun at the other end of the table. Poor Mr. Gibson soon found himself "nowhere."

"I never saw a man so much altered in my life," said Mrs. MacHugh, up in the drawing-room. "I don't remember that he used to be clever."

"He was a bright boy!" said Miss Stanbury.

"But the Burgesses all used to be such serious, strait-laced people," said Mrs. MacHugh. "Excellent people," she added, remembering the source of her friend's wealth; "but none of them like that."

"I call him a very handsome man," said Mrs. Powel. "I suppose he's not married yet?"

"Oh, dear, no," said Miss Stanbury. "There's time enough for him yet."

"He'll find plenty here to set their caps at him," said Mrs. MacHugh.

"He's a little old for my girls," said Mrs. Powel, laughing. Mrs. Powel was the happy mother of four daughters, of whom the eldest was only twelve.

"There are others who are more forward," said Mrs. MacHugh. "What a chance it would be for dear Arabella French!"

"Heaven forbid!" said Miss Stanbury.

"And then poor Mr. Gibson wouldn't any longer be like the donkey between two bundles of hay," said Mrs. Powel. Dorothy was quite determined that she would never marry a man who was like a donkey between two bundles of hay.

When the gentlemen came up into the drawing-room Dorothy was seated behind the urn and tea-things at a large table, in such a position as to be approached only at one side. There was one chair at her left hand, but at her right hand there was no room for a seat, —only room for some civil gentleman to take away full cups and bring them back empty. Dorothy was not sufficiently ready-witted to see the danger of this position till Mr. Gibson had seated himself in the chair. Then it did seem cruel to her that she should be thus besieged for the rest of the evening as she had been also at dinner. While the tea was being consumed Mr. Gibson assisted at the service, asking ladies whether they would have cake or bread and butter; but when all that was over Dorothy was still in her prison, and Mr. Gibson was still the jailer at the gate. She soon perceived that everybody else was chatting and laughing, and that Brooke Burgess was the centre of a little circle which had formed itself quite at a distance from her seat. Once, twice, thrice she meditated an escape, but she had not the courage to make the attempt. She did not know how to manage it. She was conscious that her aunt's eye was upon her, and that her aunt would expect her to listen to Mr. Gibson. At last she gave up all hope of moving, and was anxious simply that Mr. Gibson should confine himself to the dirt of the paths and the noble prospect from Haldon Hill.

"I think we shall have more rain before we have done with it," he said. Twice before during the evening he had been very eloquent about the rain.

"I dare say we shall," said Dorothy. And then there came the sound of loud laughter from Sir Peter, and Dorothy could see that he was poking Brooke Burgess in the ribs. There had never been anything so gay before since she had been in Exeter, and now she was hemmed up in that corner, away from it all, by Mr. Gibson.

"This Mr. Burgess seems to be different from the other Burgesses," said Mr. Gibson.

"I think he must be very clever," said Dorothy.

"Well;—yes; in a sort of a way. What people call a Merry Andrew."

"I like people who make me laugh and laugh themselves," said Dorothy.

"I quite agree with you that laughter is a very good thing,—in its place. I am not at all one of those who would make the world altogether grave. There are serious things, and there must be serious moments."

"Of course," said Dorothy.

"And I think that serious conversation upon the whole has more allurements than conversation which when you come to examine it is found to mean nothing. Don't you?"

"I suppose everybody should mean something when he talks."

"Just so. That is exactly my idea," said Mr. Gibson. "On all such subjects as that I should be so sorry if you and I did not agree. I really should." Then he paused, and Dorothy was so confounded by what she conceived to be the dangers of the coming moment that she was unable even to think what she ought to say. She heard Mrs. MacHugh's clear, sharp, merry voice, and she heard her aunt's tone of pretended anger, and she heard Sir Peter's continued laughter, and Brooke Burgess as he continued the telling of some story; but her own trouble was too great to allow of her attending to what was going on at the other end of the room. "There is nothing as to which I am so anxious as that you and I should agree about serious things," said Mr. Gibson.

"I suppose we do agree about going to church," said Dorothy. She knew that she could have made no speech more stupid, more senseless, more inefficacious; —but what was she to say in answer to such an assurance?

"I hope so," said Mr. Gibson; "and I think so. Your aunt is a most excellent woman, and her opinion has very great weight with me on all subjects,— even as to matters of church discipline and doctrine, in which, as a clergyman, I am of course presumed to be more at home. But your aunt is a woman among a thousand."

"Of course I think she is very good."

"And she is so right about this young man and her property. Don't you think so?"

"Quite right, Mr. Gibson."

"Because, you know, to you, of course, being her near relative, and the one she

has singled out as the recipient of her kindness, it might have been cause for some discontent."

"Discontent to me, Mr. Gibson?"

"I am quite sure your feelings are what they ought to be. And for myself, if I ever were,—that is to say, supposing I could be in any way interested——. But perhaps it is premature to make any suggestion on that head at present."

"I don't at all understand what you mean, Mr. Gibson."

"I thought that perhaps I might take this opportunity of expressing——. But, after all, the levity of the moment is hardly in accordance with the sentiments which I should wish to express."

"I think that I ought to go to my aunt now, Mr. Gibson, as perhaps she might want something." Then she did push back her chair and stand upon her legs,—and Mr. Gibson, after pausing for a moment, allowed her to escape. Soon after that the visitors went, and Brooke Burgess was left in the drawing-room with Miss Stanbury and Dorothy.

"How well I recollect all the people," said Brooke; "Sir Peter, and old Mrs. MacHugh; and Mrs. Powel, who then used to be called the beautiful Miss Noel. And I remember every bit of furniture in the room."

"Nothing changed except the old woman, Brooke," said Miss Stanbury.

"Upon my word you are the least changed of all,—except that you don't seem to be so terrible as you were then."

"Was I very terrible, Brooke?"

"My mother had told me, I fancy, that I was never to make a noise, and be sure not to break any of the china. You were always very good-natured, and when you gave me a silver watch I could hardly believe the extent of my own bliss."

"You wouldn't care about a watch from an old woman now, Brooke?"

"You try me. But what rakes you are here! It's past eleven o'clock, and I must go and have a smoke."

"Have a what?" said Miss Stanbury, with a startled air.

"A smoke. You needn't be frightened, I don't mean in the house."

"No;—I hope you don't mean that."

"But I may take a turn round the Close with a pipe;—mayn't I?"

"I suppose all young men do smoke now," said Miss Stanbury, sorrowfully.

"Every one of them; and they tell me that the young women mean to take to it before long."

"If I saw a young woman smoking, I should blush for my sex; and though she were the nearest and dearest that I had, I would never speak to her—never. Dorothy, I don't think Mr. Gibson smokes."

"I'm sure I don't know, aunt."

"I hope he doesn't. I do hope that he does not. I cannot understand what pleasure it is that men take in making chimneys of themselves, and going about smelling so that no one can bear to come near them."

Brooke merely laughed at this, and went his way, and smoked his pipe out in the Close, while Martha sat up to let him in when he had finished it. Then Dorothy escaped at once to her room, fearful of being questioned by her aunt about Mr. Gibson. She had, she thought now, quite made up her mind. There was nothing in Mr. Gibson that she liked. She was by no means so sure as she had been when she was talking to her sister, that she would prefer a clergyman to any one else. She had formed no strong ideas on the subject of love-making, but she did think that any man who really cared for her, would find some other way of expressing his love than that which Mr. Gibson had adopted. And then Mr. Gibson had spoken to her about her aunt's money in a way that was distasteful to her. She thought that she was quite sure that if he should ask her, she would not accept him.

She was nearly undressed, nearly safe for the night, when there came a knock at the door, and her aunt entered the room. "He has come in," said Miss Stanbury.

"I suppose he has had his pipe, then."

"I wish he didn't smoke. I do wish he didn't smoke. But I suppose an old woman like me is only making herself a fool to care about such things. If they all do it I can't prevent them. He seems to be a very nice young man—in other things; does he not, Dolly?"

"Very nice indeed, Aunt Stanbury."

"And he has done very well in his office. And as for his saying that he must smoke, I like that a great deal better than doing it on the sly."

"I don't think Mr. Burgess would do anything on the sly, aunt."

"No, no; I don't think he would. Dear me; he's not at all like what I fancied."

"Everybody seems to like him very much."

"Didn't they? I never saw Sir Peter so much taken. And there was quite a flirtation between him and Mrs. MacHugh. And now, my dear, tell me about Mr. Gibson."

"There is nothing to tell, Aunt Stanbury."

"Isn't there? From what I saw going on, I thought there would be something to tell. He was talking to you the whole evening."

"As it happened he was sitting next to me,—of course."

"Indeed he was sitting next to you;—so much so that I thought everything would be settled."

"If I tell you something, Aunt Stanbury, you mustn't be angry with me."

"Tell me what? What is it you have to tell me?"

"I don't think I shall ever care for Mr. Gibson;—not in that way."

"Why not, Dorothy?"

"I'm sure he doesn't care for me. And I don't think he means it."

"I tell you he does mean it. Mean it! Why, I tell you it has all been settled between us. Since I first spoke to you I have explained to him exactly what I intend to do. He knows that he can give up his house and come and live here. I am sure he must have said something about it to you to-night."

"Not a word, Aunt Stanbury."

"Then he will."

"Dear aunt, I do so wish you would prevent it. I don't like him. I don't indeed."

"Not like him!"

"No;—I don't care for him a bit, and I never shall. I can't help it, Aunt Stanbury. I thought I would try, but I find it would be impossible. You can't want me to marry a man if I don't love him."

"I never heard of such a thing in my life. Not love him! And why shouldn't you love him? He's a gentleman. Everybody respects him. He'll have plenty to make you comfortable all your life! And then why didn't you tell me before?"

"I didn't know, Aunt Stanbury. I thought that perhaps——"

"Perhaps what?"

"I could not say all at once that I didn't care for him, when I had never so much as thought about it for a moment before."

"You haven't told him this?"

"No, I have not told him. I couldn't begin by telling him, you know."

"Then I must pray that you will think about it again. Have you imagined what a great thing for you it would be to be established for life,—so that you should never have any more trouble again about a home, about money, or anything? Don't answer me now, Dorothy, but think of it. It seemed to me that I was doing such an excellent thing for both of you." So saying Miss Stanbury left the room, and Dorothy was enabled to obey her, at any rate, in one matter. She did think of it. She lay awake thinking of it almost all the night. But the more she thought of it, the less able was she to realize to herself any future comfort or happiness in the idea of becoming Mrs. Gibson.

(To be continued.)

Belgravia.

THE CENTRAL-ASIAN QUESTION.*

"If we go on at this rate, Sir John," said Baron Brunow to Sir John Cam Hobhouse, at that time President of the Board of Control, "the Cossack and the Sepoy will soon meet upon the banks of the Oxus." "Very probably, Baron," was the spirited reply of the British statesman; "but, however much I should regret the collision, I should have no fear of the result." It is now very nearly nine-and-twenty years since those diplomatic sallies were exchanged. At that time General Peroffski was supposed to be in possession of the Khanate of Khiva;

* A remarkably able and suggestive pamphlet with the above title, which has been privately circulated among the leading statesmen and politicians who take an earnest and enlightened interest in the relative positions of Russia and England in Central Asia, has furnished, without any breach of confidence, the chief materials for the composition of the present essay.

while, on the other hand, it was proposed to despatch a British army into Bokhara in pursuit of Dost Mohammed. The Muscovite expedition, however, perished miserably from cold and hunger; and a similar fate befell the Anglo-Indian forces in their attempted retreat to Jellalabad. Since that disastrous epoch no advance has been made by the Sepoy towards the banks of the Oxus, though the Cossack waters his horse in its stream, and Russian gunboats are about to command its navigation. Khokan absorbed, Khiva dependent, Samarcand annexed, Bokhara submissive, and Persia subservient—these are the fruits of a persistent policy that makes time its ally, and which converts a temporary check into a permanent conquest. For these successes of the Russian arms England is told to rejoice, inasmuch as it is ordinarily "a benefit to a neighboring government for a government by a civilized state to be substituted for a barbarous government." This country, it is added, "might even gain commercially if Russian progress were continued further;" for, though "at present the Russian system of protection excludes British goods from Central Asia," that "prohibition is itself in some measure a political expedient, the use of which would, in that state of circumstances, have been exhausted, and it could not stand with India ready to pour its commerce across the Russian border."*

Conceding, for argument's sake, the truth of this position, it may yet be questioned whether the commercial or the political view of Russian encroachments in Central Asia is the more important as regards the interest of British India. Military empires do not subsist by commerce alone. There is such a thing as public opinion to be taken into consideration. In the case of a dependency held under the peculiar circumstances which attach to our eastern possessions, the preservation of prestige and moral influence is certainly of not less moment than the extension of commercial relations. It should never be forgotten that the English are only encamped in India, in the same sense that the Turks are said to be encamped in Europe. The remembrance of past achievements, and belief in our actual power, form the basis of our empire. The former, however, is fast fading away; and the latter has been seriously impaired by the rumors of blunders and disasters which were industriously circulated throughout India at the time of the Crimean war.

"In one instance, long after that war was over," writes the author of the pamphlet already alluded to, "I was asked by a very highly-educated native to procure for him General de Todleben's account of that war. Thinking it strange that he should evince so much interest in a war some years after it was over, I inquired the cause, and was informed that, having read both the English and French accounts, he was now anxious to read the Russian account. And what was his object? viz. 'that,' as he stated, 'by a comparison of all three he might form his own opinion as to which of the great Powers individually was the strongest.' His argument was, that the natives of India felt that no Indian or Asiatic Power was strong enough to obtain the supremacy in India, and thus preserve peace and good order, and that consequently the intelligent natives were satisfied to remain under the government of a foreign Power; but he maintained that they would not feel satisfied with their present position, or have any confidence in the stability of British rule, if they believed that any other European Power was stronger than England."

The astonishing progress of Russian arms and policy in Central Asia comes home to the Indian mind with much greater force than the story of disasters experienced in Europe, and at the hands of four allied Powers. Sebastopol may have fallen, but so also did Kars; and the Caucasus was subdued and depopulated in spite of Great Britain, though aided by France, Sardinia, and Turkey. The policy of non-intervention, which has become a political maxim in this country, is viewed by our Indian fellow-subjects and dependants as a symptom and a recognition of decay. They cannot understand how an empire founded on annexation should culminate in the repudiation of the practices by which it obtained such vast dimensions. England's supposed weakness becomes Russia's real opportunity, and the

* London *Times*, January 14, 1869.

"Russ" is already looked upon as the possible ruler of India, and at no very distant date.

It is sometimes urged that the princes and nobles of India would have everything to lose, and nothing to gain, by a change of masters; as if it would not be the first act of an invader to proclaim the inviolability of all existing rights and privileges, supplemented by additional honors and emoluments. In other quarters the national debt of India is put forward as a barrier against foreign invasion and civil convulsion, in ignorance or forgetfulness of the fact that not one-third of the whole amount is due to natives. The same want of confidence is displayed in their reluctance to invest money in public works. Of the eighty millions sterling expended on railways, canals, and other works of public utility, not one-eightieth part has been furnished by native subscribers. At the same time there is no doubt that, under the British Government, the natives generally enjoy personal security and material well-being to an extent that no Asiatic country has ever witnessed since the commencement of the historic era. We have freely introduced all the latest improvements of European science and experience. We have tendered the means of education to all who will accept the boon, and have labored strenuously, and even affectionately, to ameliorate the social and moral condition of all classes of the Indian community. Unfortunately, however, our manner is overbearing, supercilious, and offensive; we interfere officiously with domestic habits and usages; we legislate from a European point of view; in short, we are nothing if not English.

The income-tax was universally unpopular. "Throughout Hindostan," writes an intelligent and friendly native, "it is regarded as a national mulct for the rebellion. The mysterious wants of the State are incomprehensible to the popular understanding. As yet the Indians have not a common national mind to feel a concern for the welfare of a common State. They are busy about their own private fiscal prosperity, and indifferent to any outside calls of common interest. It never enters into their thoughts to inquire about the annual income or expenditure of the State, or to care about its chronic deficits. . . . Never before was the national debt known in India, where only the whim of a despot had to be pledged for its payment. Not more is the national debt foreign to the ideas of the north-westerns than is the income-tax. The native mind must be taught to appreciate the wants of the State, to feel an interest in its well-being, before it will endorse the opinion that taxation is no tyranny." *

Municipal commissions are scarcely less odious, because of their inquisitorial character. Then, the Tenancy Bill is regarded with undisguised detestation in the Punjab not less than in Oude, and angry murmurs are heard in all quarters. "The people," said Sindiah to Colonel Daly, "are bewildered by your legislation. You coil act upon act, code upon code, with sections innumerable. You never leave them alone. I am told that your district officers have less intercourse with their ryots than formerly; there is more of system and less sympathy nowadays. In your desire to press on improvements, you overlook the vast difference between us and you." That, in truth, is the weak point in our armor. We have succeeded in commanding respect, and, until very recently, in inspiring fear; but we have never won the good-will of the people, or been regarded otherwise than as infidels and intruders. The princes and chiefs view us with no more kindly eyes than does the bulk of the population. Notwithstanding Lord Canning's admirable proclamation, which they accepted as their *libro d'oro*, they are filled with doubts and misgivings as to the honesty and good faith of the British Government. They know that the installation of the youthful Maharajah of Mysore was permitted only out of deference to repeated orders from the Secretary of State. They ask why the Nawab of Tonk should be deposed without any official inquiry into his conduct, and the Imaum of Muscat recognized, and even assisted, though he had foully murdered his own father. They are further startled by

* *The Travels of a Hindoo in various Parts of Bengal and Upper India.* By Baboo Bholonauth Chunder. Trübner and Co.

the reopening of the case of the late Maharajah of Kuppoortala's will, after a lapse of sixteen years, and its absolute settlement by Lord Canning in open durbar. These and similar high-handed acts of Sir John Lawrence have excited feelings of discontent and dismay among the great feudatories of State, and caused them to watch with a dangerous interest the progress of Russia on the other side of the Hindoo-Khoosh.

An invasion of India from the north-west is, for the present, of course, quite out of the question. Many years must elapse before consolidation has succeeded to conquest. It is, however, entirely a question of commissariat. Even the *Times*, while scoffing at the panic fears of Russophobists, admits that "war is not solely a question of men." The men must be fed and clothed, and supplied with arms and ammunition. This cannot be done so long as a disaffected population intervenes between the Caspian Sea and the Khyber Pass. All these predatory tribes must be coerced into silent submission, if they cannot be converted into auxiliaries. Neutrality will not suffice; for a repulse would turn waverers into active enemies. No hostile step, indeed, will be taken until success is made nearly certain by the promise of native co-operation. In the mean time a new generation is growing up to manhood on the mountain ranges of the Caucasus; the Tatar is learning to fraternize with his Cossack kinsman; the Shah-in-Shah is every day more enmeshed in the toils of the Muscovite; and Russian gold is strengthening the hands of the ruler of Cabul. And here a few remarks may be offered on the subject of that "masterly inactivity" for which Sir John Lawrence has been so extravagantly praised by the London press:

An armed intervention in Afghanistan is a proceeding which no man in his senses would advocate; nor, indeed, has it been called for by any act of hostility on the part of the Afghan ruler or people. All that was required of the Indian Government was an expression of sympathy for an ally sorely straitened through domestic treason. Having recognized Shere Ali by a formal treaty as the legitimate successor of Dost Mohammed in the sovereignty of Afghanistan, that government was at least bound to recognize no other competitor for the throne so long as the lawful prince was able to make head against his rival. It so happened, however, that Shere Ali met with temporary reverses, and was compelled for a time to abandon Cabul and Candahar to the victorious rebel, Afzul Khan. Without waiting to see the issue of the struggle, Sir John Lawrence hastily recognized the rebel chief as sovereign of those two cities with their surrounding provinces, and proposed that Shere Ali should be the ruler of Herat, though only a few years previously the Indian Government had expended upwards of three millions sterling to prevent a similar disrupture of the Afghan kingdom. Shere Ali, however, was little disposed to accept of a part, while there was yet a chance of recovering the whole. Afzul Khan has since fallen in battle; his brother Azim, who succeeded him, has been totally defeated; and we learn by telegraph that the same fate has overtaken Abdul Rahman. For these successes Shere Ali is believed to be in a great measure indebted to Russian gold; and it is quite certain that, in his hour of need, after his heartless and impolitic desertion by the Indian Government, he applied for assistance both to the Persian Court and to the Russian headquarters in Central Asia. It may be asked, indeed, in what manner could Sir John Lawrence have rendered any material aid without involving the Government in a second Afghan campaign? The answer is simple. A small supply of money would have enabled Shere Ali to raise a sufficient force to have crushed the rebellion in the bud, and would have bound that prince to us by the double ties of gratitude and interest. And surely, to quote Sir Harford Jones's quaint illustration, "The British territories in India are a park valuable enough to justify the proprietor in spending a little money to keep its pales in perfect repair and security."

It is every way to the advantage of British India that a strong government should be established in Afghanistan; but nothing can be less desirable than that it should be dependent on Russia, or learn to regard that power as its surest ally and protector. With Central Asia subdued and consolidated, Persia

subservient, and Afghanistan friendly and sympathetic, the invasion of India becomes perfectly practicable, though still possibly hazardous. There can be little doubt that the hope of plundering the rich cities of Hindostan would gather round the Russian banners a formidable array of fierce warriors, fond of adventure, eager for battle, and quite capable of maintaining themselves in an enemy's country. A nucleus of 50,000 Russian soldiers would find little difficulty in recruiting an equal force from Khokan, Khiva, and Bokhara. Of the Afghan soldiery, at least 100,000, armed with jezails and burning for revenge, would join the invading army, speedily to be swelled by thousands upon thousands of the border-tribes, with whom the Punjab force is so frequently engaged. Persia also might be counted upon for a large reinforcement; nor is there any exaggeration in stating that an army of 300,000 fighting-men, supported by artillery and unimpeded by baggage, could be assembled above the Afghan Passes preparatory to a sudden swoop into the wide-spreading plains of Hindostan. To oppose such a force, what are the means of resistance at the disposal of the Indian Government? In the first place, no reliance could be placed upon the Mussulmans, who already look to Russia as their protector. Neither would it be safe to denude the interior of European troops, whose presence would more than ever be necessary to hold in awe the disaffected, and to prevent risings in the rear of the frontier force. The Hindoo Sepoys, again, would be no match for either Tatar, Afghan, or mountain borderer. There would remain, then, only the Sikhs, the Goorkas, the Bhils, and perhaps a few regiments hastily levied from among the aboriginal hill-tribes. The European portion of the Indian army does not exceed 65,000 men, including artillery, of which not more than 40,000 could be spared from what may be called garrison duty. The native army, as at present constituted, numbers barely 135,000 men, including the Mohammedans, upon whom it would be unsafe to rely. No doubt, in a case of such great emergency, tempting inducements would be offered to recruits, and many thousands of adventurous spirits would come forward at the call of the Sirkar. But undisciplined soldiers are little better than a mob of ruffians, and, owing to the false economy of the irregular system, there is not a single officer in excess of existing duties. This certain consequence of doing away with the regular system was emphatically predicted by Sir James Outram; but nothing would then go down with the public but dashing irregulars. The disasters in Bhootan, and the frightful losses sustained in the Sitana campaign, where fifty officers were killed in skirmishes and fruitless engagements, are distinctly traceable to this not only irregular but inefficient system.

To encounter an invading host of 300,000 men, it is doubtful if the Indian Government, though fully forewarned of the danger, could place in line 20,000, without appealing for help to the native princes, whom Sir John Lawrence has lost no opportunity of humiliating and offending. Had he displayed a "masterly inactivity" in that respect, he might almost have been pardoned for his cruel abandonment of Shere Ali. The forces in the pay of the different native chiefs are computed at 200,000 men, of whom a large portion would prefer the rearguard to the post of honor; though others, such as Sindiah's little army of 10,000 men, are equal to the bulk of our Sepoy regiments. Very much, of course, would depend on the attitude assumed by these princes. Their neutrality would be perilous, their hostility fatal; while their cordial support would liberate the European corps detailed to keep guard over them. Sir Henry Lawrence, one of the ablest and most long-sighted politicians India has yet produced, particularly insisted upon this point when discussing the Central-Asian question as it appeared in 1856. "England's dangers," wrote that truly great and good man, "are in India, not without. There is no danger of a Russian invasion as long as India is united, in tranquillity and contentment, under British rule." "We are safe," he continued, "while we hold our ground and do our duty. Russia may tease, annoy, and frighten us, by her money and her emissaries; she may even do us mischief; but she will never put her foot in Hindostan. Her power of doing mischief has of late been wantonly augmented by the "mas-

terly inactivity" which grudged a few lakhs of rupees to an ally contending with rebels and traitors. Even now a small annual subsidy would probably win back the good-will of the Afghan ruler, well aware that he has nothing to fear from our ambition. Above all, however, is it the duty and policy of England to conciliate her Indian feudatories by treating them with the courtesy and respect due to their high rank, their good faith in troublous times, and their influence in moulding public opinion. In like manner it would be well to cease from harassing our fellow-subjects with innovations unsuited to their habits and modes of thought, always bearing in mind that they inherit and possess an ancient and genuine civilization, however widely it may differ from our own. With the Afghans friendly, and India contented under our supremacy, we have nothing to fear from any foreign power; but unless these conditions be fulfilled, a Russian invasion is by no means the chimerical phantasma the *Times* would have us believe, even should the present generation be permitted to revel in a fool's paradise to the last.

JAMES HUTTON.

All the Year Round.

PLAYING WITH LIGHTNING.

How many years it is since we first made the acquaintance of the Royal Polytechnic Institution, we should hardly care to say; how many years have passed without our having visited it until this present month of May, we almost forget. So many years that, as we made our way to it the other day, we had strong doubts whether our recollections of it would turn out correct, or whether it had undergone the surprising change that seems to come over everything that one has not happened to see since boyhood.

We recollect always having had our doubts, in our extreme youth, about the Polytechnic. There was an indefinable feeling as if it were not a real, out-and-out, holiday place: as if our education were in some way going on whenever we were there. Instruction, we felt, lurked behind amusement, and it was impossible to forecast, from the programme of the entertainments, exactly at what point the baleful genius of mental improvement might be expected to claim its victim. There were diverting objects to look at, doubtless, but even machinery in motion—a charming object always to any boy of a well-regulated mind—can be turned to an evil educational account. A flavor of chemicals also pervaded the building, and suggested unpleasant instructive references to hydrogen, oxygen, and other gases, satisfactory enough when combined in experiments concluding pleasantly with a bang or a flash of fire, but evil to hear about in an hour's lecture.

There were suggestive whirring straps and wheels in the entrance hall in those days, inspiring delusive hopes as to the quantity of moving machinery above. The first view of the hall itself was very pleasing. A large raised basin, or tank, filled the centre of the floor, and on its limpid waters floated absolutely maddening models of ships, steamers, life-boats, and other vessels which we felt we would have given worlds to possess. Lighthouses, piers, and docks rose at intervals around this delightful harbor, and two or three small cork sailors, illustrative of the superior merits of somebody's life-belts, floated, smiling and blue-jacketed, on its serene surface. A railway ran along the side of the tank, and its terminus at the far end was flanked by a deep green pool, into which the diving-bell, mysterious engine, was let down, full of adventurous spirits, who invariably returned to the upper air flushed and sheepish. From this pool, too, would emerge the diver, clad in that tremendous costume, specially invented, as we then supposed, expressly for our discomfiture, and after mysteriously rapping his helmet with a couple of halfpence just fished up from the bottom, would sink back into the water, a goggle-eyed monster. Twice in our very early youth we recollect arousing the echoes of the neighborhood with our shrieks at this alarming spectacle; once it was even found necessary to bear us with ignominy into Regent Street. It was long before we could feel at all comfortable in that tremendous presence.

Much more to our taste was the glass-blowing stall, whereon were exhibited ships, long-tailed birds, and other desirable objects. At these art-treasures we were never tired of gazing. The glass cases around the walls, on the other hand, we usually thought it well to avoid, as containing not unfrequent educational pitfalls, too readily lending themselves to cross questioning. The very lectures themselves, as we remembered them, were doubtful. The darkened room for dissolving views, magic lanterns, and similar entertainments, was undoubtedly pleasant, and favorable to secret scrimmages with our friends, by reason of the difficulty of ultimate detection; but even here useful knowledge was always lying in wait for us.

Our classical reminiscences have left us with the conviction that, when Vulcan forged the bolts of Jove, the scene must have been, as the graphic reporter has it, "one of terrific grandeur." We pictured to ourselves the lame god and his Cyclopean assistants, hammering and forging the celestial weapons in some flaming cavern of Ætna or Vesuvius, amid an eternal din like that of a chain-cable factory crossed with a rolling-mill. Lurid smoke rolls heavily upward through the fiery air; the molten lava rushes forth on its work of destruction; while the lightnings, that now and again play round the top of the groaning mountain, proclaim to a trembling world the tremendous nature of the operations going on below.

Although we had inspected electrical machines, and had looked as scientific as possible at the sparks we had seen elicited from them, the grand and heroic idea of lightning-making had never left us. Consequently, when we were told that lightning was made and exhibited at certain stated hours, in the unromantic district of Regent Street, we received the statement with some incredulity; and it was to test its truth that, after many years, we came to revisit the Polytechnic. Let us endeavor to give some account of what we learn from the lucid and interesting lecture, which explained to us the extraordinary performances of the great Induction Coil.

It was discovered by Faraday, many years ago, that a coil of wire, wound loosely round a magnet, became actively electric at the moment when the magnet was either placed within its folds or withdrawn from them, and also that a galvanic current, in passing round a conducting circuit, produces an "induced" current in another conductor that surrounds the first. A galvanic current is usually generated by what is called a galvanic battery, consisting of two dissimilar metals or other substances, technically named elements, not touching each other, but immersed in some acid fluid. Chemical action is excited, and electricity, in the form known as galvanism, is set free. If the elements are connected together, outside the acid, by a piece of wire, or any other conductor, the electricity will proceed from one element called the positive pole of the battery, and will pass along the wire to the other or negative pole, thus making what is called a circuit. If the wire be interrupted, the electricity, if present in sufficient quantity, will leap across the gap in the form of a visible spark. If the gap be filled by any substance capable of being chemically decomposed by electricity, the decomposition will take place. In all this we have only the galvanic battery, and the primary current directly proceeding from it.

Now, Faraday's discovery was that this galvanic or primary current, at the moment when it begins to flow, and again at the moment when it ceases to flow, produces a secondary or induced, and perfectly independent current, in another conductor wound around the first, but not in contact with it. At the moment when the primary current begins to flow, the induced current passes in the same direction with it; but at the moment when the primary current ceases to flow, the induced current passes in the opposite direction. Instead of being, as in the primary current, continuous, the induced current is only momentary; and, in order to produce it at pleasure, it is necessary to have some contrivance by which to cut off and to restore the primary current as often as may be desired. As often as it is cut off, the reverse induced current passes; as often as it is restored, the direct induced current passes. The instrument used for this purpose is called a break, or contact breaker. It is placed in a gap in the primary or galvanic circuit, communicating with one extremity of the gap,

and capable of being made to touch the other extremity also. When it touches, it is said to "make" contact, and, when it ceases to touch, it "breaks" contact.

Not only does the magnet, like the primary current, induce electricity, but a piece of soft iron is rendered magnetic during the passage of a primary current through a coil of wire surrounding it. If the iron be massive, it retains its magnetic quality for a few moments after the galvanic current ceases; but, if it be of small bulk, it gives up its magnetism immediately.

In the manufacture of a "coil" for the display of induced electricity, all the foregoing facts are taken into account. The centre, or core, of the coil is formed of a bundle of soft iron wire. Around this is wound the wire for the primary current, and around this again the wire for the secondary current. When the ends of the primary wire are connected with the two poles of a galvanic battery, the core of iron wires becomes a core of magnets, and hence assists the primary current in inducing electricity in the scondary wire. When the ends of the primary wire are disconnected from the battery, the core ceases to be magnetic, and the withdrawal of the magnet assists the cessation of the primary current in again inducing electricity in the secondary wire.

The largest induction coils hitherto made have been about a foot or fifteen inches in length, by about four inches in diameter. Seven miles has been about the extreme, limit of length of the secondary wire and nine inches the greatest length of spark that could be obtained. With these figures as standards of comparison, we approach the "monster coil" now under consideration.

In this, the central core of iron wires is composed of pieces each five feet long, and the thickness of knitting needles, the whole core being five inches in diameter. The primary wire is of copper, thirty-seven hundred and seventy yards in length. The secondary wire is also of copper, and is one hundred and fifty miles in length. The rods of the core are separated from one another, or insulated, by being wound round with cotton, and the primary wire is covered in a similar manner; the secondary wire is covered with silk; and all these coverings are required in order to force the current to keep within each wire, or to pass along its length, instead of escaping from it laterally to contiguous turns of the spiral. The whole apparatus is enclosed within cylinders of vulcanite, and is mounted on strong supports, themselves similarly covered. The ends of the secondary wire issue one from each extremity of the coil, and are connected to "terminals," one of which is a point, and the other a polished disc of metal. They stand on movable columns in front of the coil; and the wires, when necessary, can be detached from the terminals, and attached to any other apparatus that may be required. When the primary wire is connected with a powerful galvanic battery, and contact is made, the core becomes a bundle of magnets, and this bundle combines with the primary wire to induce an electic current in the secondary wire. When contact is broken, the primary current ceases to flow, the core loses its magnetism, and an electric current is again induced in the secondary wire. If the terminals be not too far apart, this induced current leaps across the space between them in the form of a visible spark or flash.

There is yet another piece of subsidiary apparatus, called the condenser. This consists of a number of small sheets of insulated tinfoil, connected together, and with the primary wire, to which they form a sort of loop circuit. The condenser is supposed to afford a safety-valve, or reservoir of space for the primary current, and a security against any injury being done to the primary wire by the sudden rushing into it of a stream of electricity.

The first endeavors to work the new coil were frustrated by its own powers of destruction. It melted the platinum, and burnt up the brass of the original contact breaker. When used with a small amount of condenser surface, it burst the primary wire into fragments, and escaped from it laterally. When these difficulties were overcome, and the whole apparatus was in order, it afforded a spark, or rather a flash of lightning, twenty-nine inches in length, and apparently about a third of an inch in width. The length was measured, of course, by the distance between the terminals, and when this exceeded twenty-nine inches, no distinct flash was given. For a dis-

tance within its power to cross, it would almost seem that the electricity, like a strong leaper, makes an effort proportionate to the resistance to be overcome. When the terminals are distant, but still within the twenty-nine inch limit, the flash strikes upon the disc with a heavy shock and a loud report. When they are near together, or within two or three inches, the flash gushes forth without noise, and lazily, like a spurt of molten metal, or of dense flame; and from this "flaming spark," as it is called, the flaming portion can be blown aside by bellows, leaving the actual course of the electricity distinctly visible. Either the flaming spark or the longer one will perforate considerable thicknesses of glass, and five inches of solid plate glass have already been pierced by it. At one visit we chanced to see a remarkable illustration of the way in which metallic surfaces may serve to attract lightning. The outer covering of the coil displays the name and address of Mr. Apps, its maker, in gold letters of considerable size. In taking a long spark, the stands that support the terminals were placed nearer to the coil than usual; and the attraction of these gold-leaf surfaces was sufficient to divert the spark from its course, and visibly to break it up into portions. In the darkened theatre at the Polytechnic, the long flash lights up the room and the audience with the peculiar lurid glare so well known as an effect of brilliant lightning at night, and displays the features and action of every one present. But it is curious to note that, the flash being of instantaneous duration only, it allows no *motion* to be seen. We should think, if guided by our consciousness alone, that the flash lasted an appreciable time; but this would be an error, due to the persistence of the impression on the eye, after the flash itself had ceased. If the room be made perfectly dark, and if the spectators all raise their arms and wave their hands to and fro as quickly as they can, the flash will display the position of the arms, but not the movements of the hands. *While the flash lasts, the hand has no time to move*, and is consequently seen, as if motionless, in the position in which the flash finds it. It is in contemplation to exhibit the same effect in a more complete way by affixing a picture to a revolving disc. When the disc revolves so rapidly that no outlines of the picture can be distinguished by means of any ordinary light, they will be perfectly seen in a darkened room by the light of the flash. It lasts so short a time, that the revolving disc does not change its position in the brief period.

It is the smallest part of the advantage expected from the new coil, that it allows all the luminous and all the destructive phenomena of chamber electricity to be exhibited, in hitherto unapproached beauty and intensity. Men of science anticipate from it new discoveries of high importance. In the intervals between the public exhibitions of artificial lightning, the effect of the coil are being closely studied by those who are best able to appreciate them; and we believe no long time will be required in order to prove that Mr. Pepper, in his ever zealous catering for the entertainment and instruction of his especial public, has laid the foundation of real and solid scientific progress.

PROFESSOR HUXLEY.

BY THE EDITOR.

It is in compliance with a generally expressed desire that we embellish the Eclectic this month with a portrait of Prof. Huxley, the learned English naturalist. The universal interest which his scientific articles have excited in the past few years, culminating in his essay on Protoplasm which appeared in the June number of this magazine, seems to have awakened a general desire to know something of the man personally; and we find, notwithstanding his fame, how little we really know of him. Though not a young man, and though he has long been known as connected with various branches of science, particularly Physiology, it is only in comparatively recent years that he has risen to the eminent position which he now holds officially, and in the estimation of the scientific world.

The Cyclopædias know him not; but

the readers of the ECLECTIC since 1860, can scarcely fail to be familiar at least with his name and the calibre of his mind. Our ablest and most popular articles on the physical sciences during these years have been, almost without exception, from his active and vigorous pen.

Thomas Henry Huxley was born about the year 1800. He seems to have been educated originally for the medical profession, but having a bent for natural history, he applied himself to its study, and eventually accepted the position of assistant surgeon in the naval service. In this capacity he accompanied Capt. Stanley's expedition to the eastern archipelago, and made observations on the natural history of the sea, particularly on the anatomy and affinities of the molluscs and medusæ, on which subjects he has since written extensively.

From the date of this expedition, his reputation as a *savant* continued to increase, until he was appointed successor to Prof. Edward Forbes in the chair of Palæontology in the government school of mines. In connection with this office he delivers an annual course of lectures on general natural history, many of which have appeared in our pages.

Mr. Huxley is also Fullerian Professor of Physiology at the Royal Institution, a Fellow of the Royal Society, and member of the British Association. In addition to his official duties he contributes frequently to the English magazines, and, as a popular lecturer on science, is probably without a rival, except in Prof. Tyndall.

Inasmuch as the material which must furnish the text for any further remarks has been recently laid before the readers of the ECLECTIC, we might well close here; but Prof. Huxley holds a position with regard to contemporary thought which should not be overlooked even in a casual sketch of his life. He is probably the best living exponent of the relation which the physical sciences bear to the abstract, to morals and theology, and of the direction in which human thought is inevitably tending.

The phrensy and partisan heat of the struggle between young science on the one hand and theology on the other has passed away; each may be said to rest within defences which for a time at least render it practically unassailable by the other. The wild rebound from a rigid, dogmatic creed, to atheism or rather materialism, has expended itself, and the reaction having set in, thought is seeking its centre, and the most advanced minds may be said, in esoteric questions, to suspend judgment. This is precisely the attitude of Prof. Huxley and of the school, embracing a large portion of living English thinkers, of which he may be taken as the representative. Recognising the necessary limits of human knowledge, he yet refrains from malicious attacks upon a system which professes to transcend them, and simply declines to express an opinion or to trouble himself about matters of which, however important they may be, we do know nothing and can know nothing.

Perhaps we ought not to close this sketch without explaining the attitude of most scientific men toward materialism, and we can fortunately do so almost in Prof. Huxley's own words. We do this with the more readiness, as the impression that science *necessarily* leads to materialism has caused many minds to look with suspicion upon even the most vital and important discoveries, and has built up the strongest barrier which science has been compelled to surmount.

In several of his recent lectures Prof. Huxley has happily devoted himself to this very point. He says, "As surely as every future grows out of past and present, so will the physiology of the future gradually extend the realm of matter and of law until it is coextensive with knowledge, with feeling, and with action.

The consciousness of this great truth weighs like a nightmare, I believe, upon many of the best minds of these days. They watch what they conceive to be the progress of materialism, in such fear and powerless anger as a savage feels, when, during an eclipse, the great shadow creeps over the face of the sun. The advancing tide of matter threatens to drown their souls; the tightening grasp of law impedes their freedom; they are alarmed lest man's moral nature be debased by the increase of his wisdom. . . .

But, after all, what do we know of this terrible 'matter,' except as a name for the unknown and hypothetical cause

of states of our own consciousness? And what do we know of that 'spirit' over whose threatened extinction by matter a great lamentation is arising, like that which was heard at the death of Pan, except that it is also a name for an unknown and hypothetical cause, or condition of states of consciousness? In other words, matter and spirit are but names for the imaginary substrata of groups of natural phenomena.

And what is the dire necessity and 'iron' law under which men groan? Truly, most gratuitously, invented bugbears. I suppose if there be an 'iron' law, it is that of gravitation; and if there be a physical necessity, it is that a stone, unsupported, must fall to the ground. But what is all we really know and can know about the latter phenomenon? Simply, that, in all human experience, stones have fallen to the ground under these conditions; that we have not the smallest reason for believing that any stone so circumstanced will not fall to the ground; and that we have, on the contrary, every reason to believe that it will so fall. It is very convenient to indicate that all the conditions of belief have been fulfilled in this case, by calling the statement that unsupported stones will fall to the ground, 'a law of nature.' But when, as commonly happens, we change *will* into *must*, we introduce an idea of necessity which most assuredly does not lie in the observed facts, and has no warranty that I can discover elsewhere. For my part, I utterly repudiate and anathematize the intruder. Fact I know; and Law I know; but what is this Necessity, save an empty shadow of my own mind's throwing?

But if it is certain that we can have no knowledge of the nature of either matter or spirit, and that the notion of necessity is something illegitimately thrust into the perfectly legitimate conception of law, the materialistic position that there is nothing in the world but matter, force, and necessity, is as utterly devoid of justification as the most baseless of theological dogmas. . . .

In itself it is of little moment whether we express the phenomena of matter in terms of spirit, or the phenomena of spirit in terms of matter; matter may be regarded as a form of thought, thought may be regarded as a property of matter,—each statement has a certain relative truth. But with a view to the progress of science, the materialistic terminology is in every way to be preferred. For it connects thought with the other phenomena of the universe, and suggests inquiry into the nature of those physical conditions, or concomitants of thought, which are more or less accessible to us, and a knowledge of which may, in future, help us to exercise the same kind of control over the world of thought as we already possess in respect of the material world; whereas, the alternative, or spiritualistic terminology, is utterly barren, and leads to nothing but obscurity and confusion of ideas.

Thus there can be little doubt that the further science advances, the more extensively and consistently will all the phenomena of nature be represented by materialistic formulæ and symbols.

But the man of science, who, forgetting the limits of philosophical inquiry, slides from these formulæ and symbols into what is commonly understood by materialism, seems to me to place himself on a level with the mathematician, who should mistake the x's and y's, with which he works his problems, for real entities,—and with this further disadvantage, as compared with the mathematician, that the blunders of the latter are of no practical consequence, while the errors of systematic materialism may paralyze the energies and destroy the beauty of a life."

Prof. Huxley's views in education, and the improvements necessary in its method, may be seen from his article on that subject in the present number. His most important recent work is a contribution to the *Fortnightly Review*, in which he exposes the worthlessness, from a scientific point of view, of the writings upon which M. Auguste Comte and his followers propose to base a new political, social, and religious system for the world.

POETRY.

THE FLOWER.

I HEARD a young maid saying—"Sweet is the time of Maying,
Pleasant the odors playing along the bended grass,
When we catch the under-toning of the tender cushat's moaning,
And the mountain winds salute us, kissing as they pass.

"O! lovely is the viewing of the ruddy morning's wooing,
When from out the cloudlands stealing like a startled fawn she goeth,
Leaving grey night complaining in the path of her disdaining,
Soft dews his soul revealing, that still follow where she goeth.

"And beautiful to mark ere the dazzled earth grows dark,
The conquered sun down-dying on the crimsoned fields of day.
Like a youthful warrior fighting for the land of his delighting,
While the evening gales go sobbing through the blossoms of the May."

Thus, while the May-bloom seeking, I heard her gentle speaking,
And it thrilled me with the memories of a spring-time long ago,
When with the thorn-boughs laden I met another maiden
Whose passing from the green earth left me wintered in the snow.

So she fleeted, like the seeming of that early youth-time's dreaming,
A vision of deep beauty to still the soul of care;
And long after she had parted, and left me newer-hearted,
I hear her bird-voice echoing on the rapt, impassioned air.

O! wild, untutored singing, music of Love's own ringing,
'Twas like a wind-harp sounding, murmuring as she passed!
O! tender May-spring flower, O! life's delicious hour,
Touched by the golden dawning, wherefore away so fast?

GONE BEFORE.

THERE'S a beautiful face in the silent air,
Which follows me ever and near,
With smiling eyes and amber hair,
With voiceless lips, yet with breath of prayer,
That I feel, but cannot hear.

The dimpled hand, and ringlet of gold,
Lie low in a marble sleep;
I stretch my arms for the clasp of old,
But the empty air is strangely cold,
And my vigil alone I keep.

There's a sinless brow with a radiant crown
And a cross laid down in the dust;
There's a smile where never a shade comes now,
And tears no more from those dear eyes flow,
So sweet in their innocent trust.

Ah, well! and summer is coming again,
Singing her same old song;
But, oh! it sounds like a sob of pain,
As it floats in the sunshine and the rain,
O'er hearts of the world's great throng.

There's a beautiful region above the skies,
And I long to reach its shore,
For I know I shall find my treasure there,
The laughing eyes and amber hair
Of the loved one gone before.

THE HALL PORTER AT THE CLUB.

"How long, good friend, have you sat here,
A warder at the door,
To let none pass but the elect
Into the inner floor?"—
"I think 'tis thirty years at least;
I came in manly prime,
And now I'm growing frail and old,
And feel the touch of Time.

"Many's the change that I have seen
Since first I entered here;
A thousand merry gentlemen
Were members in that year.
And of the thousand there remain
Scarce fifty that I know,
And they are growing old like me,
And hobble as they go.

"Seven hundred underneath the sod,
The great, the rich, the free;—
A hundred fallen on evil days,
Too poor to pay the fee.
Fifty resigned because their wives
Forbade them to remain;—
And half a score went moody mad
From overwork of brain.

"And two committed suicide,—
One for a faithless wife,
And one for fear to face the law
That could not take his life.
But why run o'er the mournful list?
Each month that passes round,
Sees some old leaf from this old tree
Fall fluttering to the ground.

"And you, my friend, who question me,
Are young, and hale, and strong,
You'll have such memories as mine
If you but live as long!"——

"Well! well! I know! Why moralize?
Or go in search of sorrow?
Here's half a crown to drink my health;
And better luck to-morrow!"

DAYS OF CHILDHOOD.

O DAYS of joy and gladness! return, if but in dreams,
That again my feet may wander beside the wild-wood streams,
Through their dim and shadowy mazes, in fancy as of yore—
I may forget life's changes and be a child once more.

Most surely I am nearing the temple of life's noon,
Adown the sloping hill-side I shall be journeying soon.
Alas! my step has changed, my voice has lost its glee;
Never again will childhood, save in dreams, return to me.

LITERARY NOTICES.

Italy [*Florence and Venice*]. By Henri Taine. Translated by J. Durand. New York: *Leypoldt & Holt.*

THERE are certain things, tints, emotions, sentiments which we feel at once can never be described, ideas which can never be expressed, and works which in the attempt to convey our impressions of them dash us at once against the barriers which mark the limitations of language. Such a work is the "Italy" of M. Taine, and such is the most conspicuous impression which it leaves upon the mind of the reader. We may say that it is one of the most comprehensive critical works of our time, but that is not definite enough; we may say that M. Taine is the first foreigner who has really seen Italy as she is, and as she was, her history, her place in the ages, her political and social characteristics, as well as her ruins, basilicas, and picture-galleries; that he brings to his work the most profound erudition without a taint of pedantry; that his descriptive eloquence is unequalled in our literature, save by Thomas De Quincey; and that his intellect is keen as his imagination is vivid; but all this, though true, is only a part of the truth, and we despair of giving, within reasonable limits, a just conception of his work as a whole.

M. Henri Taine is the president of the French Academie des Beaux Arts, and has long been recognised in France as the foremost living art-critic. His journey to Italy, of which the present work is the product, was made in 1864, for the purpose of studying the art of the Renaissance and Middle Ages; and in addition to his art criticisms, which make even Ruskin seem obscure, transcendental, and superficial, he gives us records of travel, descriptions of cities and scenery, the results of observation on the social and political condition of the people, and shows how the present and future of a nation may be eliminated from the history of its past.

Probably the most immediate and profound impression which his brief comments on art, history, and society make upon the mind, is astonishment at the comprehensiveness and accuracy of his information, and the unerring facility with which he ignores details, and penetrates to the philosophy of every object, event, or record which presents itself. Facts in his hands are no longer facts only, nor a picture merely an expression of the conceptions of a single human genius; they form their appropriate sentences in the great unwritten history which the race has been making for itself since it learned to subordinate nature, and the whole philosophy of his work is to show how wholly dependent any art is upon contemporary circumstance, and how impossible it is for even the greatest genius to shake off entirely the shackles of his time. Thus, in studying the art of the Renaissance, he gives the pith and substance of the period which it illustrates, and affords, we think, a clearer conception of the direction in which the human mind first struggled on emerging from the Dark Ages than any other writer whatever.

Notwithstanding the magnitude of the field which he covers, his work is by no means voluminous. It is entirely free from elaboration, and his brisk, brief, sketchy paragraphs would be utterly inadequate in the hands of a writer less thorough in the salient points of his subject, and less a master of the art of language. Indeed his manner is not less remarkable than his matter. It is crisp, lucid, and adequate, and he has, in an eminent degree, the admirable directness and simplicity of method which characterizes French criticism, and renders it altogether unequalled of its kind.

With these preliminary remarks, which we have designed to be suggestive rather than analytical, we will devote the remainder of our space to quotations from the book itself, selecting such paragraphs as will serve to show its tenor, scope, and method.

In comparing the spirit of antique with modern art, he says that—

"In sculpture at least the only masters who perfectly present the sentiment of beauty are the Greeks. After them all is deviation. No other art has been able to put the soul of the spectator in so just an equilibrium . . . . . Muscles are obliterated, the trunk is prolonged without depressions or projections into the arms and thighs; there is no effort. How strange this word sounds in our world where one encounters nothing but effort! The reason is that, since the Greeks, man, in developing himself, has become distorted; he has become distorted all on one side by the predominance of cerebral activity. Nowadays, he desires too much, he aims too high, and has too much to do.

In those days after a youth had exercised in the gymnasium, when he had learned a few hymns, and could recite Homer, when he had listened to orators in the agora, and to philosophers in the portico, his education was finished; the man was accomplished, and he began life complete. A rich young Englishman of to-day, of good family, and calm in blood, who has rowed, boxed, and raced a good deal, who possesses healthy and precise ideas, who deliberately lives in the country, is, in these days, the least imperfect imitation of the young Athenian; he often possesses the same unity of feature, and the same calm regard. But this does not last long. He is forced to imbibe too much knowledge, and too positive knowledge; languages, geography, political economy, Greek verses at Eton, Mathematics at Cambridge, newspaper statistics and documents, besides the Bible and ethics. Our civilization overwhelms us; man staggers under the pressure of his ever increasing task; the burden of inventions and ideas, which he easily

bore in infancy, are no longer proportioned to his strength. He is obliged to shut himself up in a little province and become special. One development excludes others; he must be either laborer or student, politician or philosopher, manufacturer or man of family, and confine himself to one thing at the expense of all the rest; he would be inadequate were he not mutilated. Hence the loss in him of calmness, and the loss in art of harmony. The sculptor, however, no longer addresses himself to a religious civic community, but to a crowd of isolated amateurs; he ceases to act in the capacity of priest and of citizen, and is only a man and an artist. He dwells on the anatomical details which are to arrest connoisseurs, and on the exaggerated expression which is comprehended by the ignorant. He is a sort of expert goldsmith desirous of gaining and of retaining public attention. He executes simply a work of art, and not a work of national art."

In speaking of some pictures by Bonifazio in the Pinacotheca of Verona, illustrating the era of Francis I., he makes some acute and just remarks on costume as an index of taste.

"Costume, in those days, is so fine that it alone affords material for pictures; in every epoch it is the most spontaneous and the most significant of the works of art; for it indicates the way in which man comprehends the beautiful, and how he desires to adorn his life; rely upon it, that, if it is not picturesque, picturesque tastes are wanting. When people truly love pictures, they begin to depict their own persons; this is why the age of dress-coats and black trousers is poorly qualified for the arts of design."

Of what Art is to be in the future, and of what constitutes for him the supremest merit in painting, he says that he admires Perugino, and artists of his period, because their inspiration comes from themselves, and not from another.

"Later, painters are to do better, but they will be less original; they will advance faster, but in a troop; they will go further, but in the hands of great masters. To my eyes, disciplined thought is not the equivalent of free thought; what I penetrate to in a work of art, as in every other work, is the state of the soul that produced it. In setting up a standard, even without reaching it, one lives more nobly and more manfully than in acquiring one he has not himself created. Henceforward, all talent is to be mastered by genius, and artists are to become less as art becomes greater."

We had scored for quotation his most eloquent description of a midnight sail in the harbor of Venice, but our space will not permit, and we give instead the conclusion of his chapter on Pisa.

"The eyes, again turning upward, rest on the four structures of ancient Pisa, solitary on a spot where the grass grows, and on the pallid lustre of the marbles profiled against the divine azure. What ruins, and what a cemetery is history! What human pulsations, of which no other trace is left but a form imprinted upon a fragment of stone! What indifference in the smile of the placid firmament, and what cruel beauty in that luminous cupola, stretched, in turn, like a common funereal dais over the generations that have fallen! We read similar ideas in books, and in the pride of youth we have considered them as rhetoric; but when a man has lived the half of his career, and, turning in upon himself, he reckons up how many of his ambitions he has subdued, how much he has wrung out of his hopes, and all the dead that lie buried in his heart, the sternness and magnificence of nature appear to him as one, and the heavy sobbing of inward grief forces him to recognize a higher lamentation, that of the human tragedy which, century after century, has buried so many combatants in one common grave. He stops, feeling on his head as upon that of those gone before, the hand of inexorable powers, and he comprehends his destiny. This humanity of which he is a member, is figured in the Niobe at Florence. Around her, her sons and her daughters, all those she loves, fall incessantly under the arrows of invisible archers. One of them is cast down on his back, and his breast, transpierced, is throbbing; another, still living, stretches his powerless hands up to the celestial murderess; the youngest conceals his head under his mother's robe. She, meanwhile stern and fixed, stands hopeless, her eyes raised to heaven, contemplating with admiration and horror the dazzling and deadly nimbus, the outstretched arms, the merciless arrows, and the implacable serenity of the gods."

The publishers announce that, "with the favor of the public," the present work will in time be followed by "The Philosophy of Italian Art," "The Philosophy of Art in the Low Countries," "The Philosophy of Art," and "English Literature," by the same author.

Surely the cultivated class in this country is sufficiently large to justify and even necessitate the issue of such works as these.

We, above all others, who have the material wealth and the desire to encourage the development of art, and yet can most of us have but a meagre acquaintance with the productions of its golden age, need them, and they will doubtless form a most valuable contribution to our literature.

The world is not yet so rich in profound philosophical criticism that it can afford to allow these works to slumber in the comparative obscurity of a single language.

Wonders of Heat. By ACHILLE CAZIN. New York: *C. Scribner & Co.*

THE importance of scientific information is becoming more and more felt as the Sciences gradually appropriate to themselves a wider space in the world of discovery and thought. Already a more or less extensive knowledge of some of its special departments is absolutely necessary to the successful pursuit of many branches of industry, and without an acquaintance with general principles and processes a large part of the most valuable modern literature is practically a sealed book to the student.

Of the place which Science must necessarily be assigned in any adequate plan of education, Prof. Huxley treats in his article in the present number, and it is not necessary for us to traverse the dicta of that eminent authority. We need only state the self-evident fact that science is exercising a most profound influence upon every department of human thought, and that upon the operation of laws, which it alone can explain, depends the very existence of the race; and then to draw the equally obvious deduction that an acquaintance with its principles is at least a most important branch of useful knowledge.

The difficulty which meets one at the outset in attempting to disseminate scientific information is that of adapting it to the average intelligence of those to whom, in an especial degree, it is essential. Many, in fact most, of the processes are occult and subtle; their application requires a capacity for logical induction; and their explanation demands the use of technical terms which are of course a new language to the average untrained reader. The understanding of the simplest experiment requires a closeness of attention and a mental effort which have alone seemed sufficient to repel the superficial, and the tendency of modern education is to produce superficiality. The only method of popularizing science which has been ordinarily successful hitherto, is that of the lecturer assisted by actual experiment.

This difficulty has in a great degree been overcome in the series of French works now being published by Scribner & Co., under the title of "The Illustrated Library of Wonders." Each volume covers a special field of science, confining itself to elementary principles and the necessary illustra-

tions, and treated in an easy, untechnical, and popular style. Of course the reader cannot gulp them down as he does Mrs Southworth's last novel —even the nineteenth century has failed to discover a royal road to learning—but the necessity for study is reduced to the minimum, and, the interest once awakened, becomes speedily fascinating.

"Wonders of Heat," which has furnished the text for these remarks, forms the third volume of this most excellent series. It gives a summary of the laws of heat, and as heat is now recognized to be but one manifestation of that primary force which underlies all things, most of the phenomena of nature are touched upon, and, as far as possible, explained by experiments. These experiments are numerous, and many of them extremely subtle and curious; for instance, those which demonstrate the identity of light and heat, and that Light, Heat, and Sound are precisely the same in their laws of motion. Moreover, it will not be difficult with the assistance of this book to set up for a magician. With a few instruments easily made or obtained, water may be made to boil by cold, or it may be frozen in the midst of the fire, a red-hot iron may be held in the hand, gunpowder may be ignited with ice, and various other things performed which seem to suspend the laws of nature, but which are strictly in accordance with them.

It has unfortunately become the general impression that the tendency of scientific discovery is towards materialism, or at least inimical to religion. These books distinctly prove that such an impression is not justified by the facts. Many of our conceptions, it is true, will be modified; the domain of nature is seen to be wonderfully enlarged, but in thus extending the operation of natural laws we no more approach the great First Cause, than in climbing a mountain we impugn the existence of the heavens. We may clamber high, but they are above us still. M. Cazin himself says:—

"Scientific investigation fortifies within our soul the sentiment of adoration for the Divine Power, and raises us by degrees from the slavery of the physical to the freedom of the moral and spiritual world. Thus science and religion may truly be called sister spirits."

The work is profusely illustrated, the style is excellent, and for the price they are among the cheapest books in the market.

Stories in Verse. By HENRY L. ABBEY. New York: *A. D. F. Randolph & Co.*

THE most unfortunate effect of the influence which Tennyson has exercised upon contemporary thought, has been the number of more or less skilful imitators who have straggled after him into the field, into whose heads fifty years ago the idea of writing verse would probably never have entered. The Poet Laureate has such a specious facility for weaving obvious thoughts into the web of a poem, and his elaborate style is apparently so transparent and simple, that every reader of sufficient sensibility to be susceptible to the aspects of nature, or sufficient sentiment to perceive the underflow of life, naturally enough fancies that he possesses the prime requisites for success in the same pursuits.

He makes the fatal mistake of confounding susceptibility to poetic impressions with the creative faculty, and forgets that commonplace, when subjected to the universal solvent of genius, is commonplace no longer. The difference between the scenes, events, and experiences of every-day life when reflected in the mind of a veritable poet, and the same scenes, events, and experiences seen through a kind of sentimental haze, is lost sight of; the manner of the poet is mistaken for the substance; and the consequence is a school of writers in whom, to quote Hazlitt, "the decomposition of prose is substituted for the composition of poetry."

Among these we fear we shall have to place Mr. Abbey, and very low in the scale too. He is entirely destitute of any vigor of poetic conception, still more of any power of poetic expression, and lacks even the grace and facility which have entitled some of the school to a measure of praise; his ideas are trite and monotonous; and we really cannot see in what respect his stories differ from shambling and ill-regulated prose, except in the rather liberal use of capitals.

The astonishing ease with which verse can be made by a conscientious use of these capitals and the Numeration Table had almost betrayed us into it in reviewing Mr. Abbey's book, and we had actually written the following lines (with capitals):—

We sit before our desk and take this book,
A little book, all deftly bound in green,
And giving promise of rich store within.
"Stories in Verse," or that which at the distance
Of twenty steps or so doth look like verse,
Straggle along the pages; and in lines,
Which, after rule, lead off with Capitals,
The fates are sung of Blanche and Grace Bernard,
And him "the thick-lipped and heavy-heeled,
With woolly hair, large eyes, and even teeth."

Here, however, consideration of the space which verse necessarily occupies compelled us to fall back upon the vulgar and disreputable method of expressing ourselves which we have adopted in this paper.

In order to allow Mr. Abbey to speak for himself, and to give an illustration of the extent to which ideas and style can be copied without subjecting the writer to a charge of verbal plagiarism, we will quote the prologue to the story of Grace Bernard, which, by the way, is more entirely irrelevant to anything which follows after than can be tolerated even in a prologue:

"I know the drift and purpose of the years;
The will, which is the magnet of the soul,
Shall yet attain new powers, and man
Be something more than man. The husks fall off;
Old civilizations pass, the new come on."

If Tennyson had never written Locksley Hall, and no one else had ever written anything similar, this might possibly have been faintly suggestive of originality. As it is, "I know the drift and purpose of the years" is to develop in the public taste a demand for decidedly better work, even in imitators.

In general, the metaphors and comparisons which Mr. Abbey has introduced, and which he doubtless regards as the distinctly poetical portion of his work, only clog the wheels of his stories and smother their interest; but in reading the volume we scored a couple which, though fanciful, are good. A wife dies in child-birth and leaves to her husband a daughter whom he calls Coralline, for—

. . . . . "to him
She was a spray of whitest coral, found
Upon the coast where death's impatient sea
Hems in the narrow continent of life."

Again, a lover met his beloved—

"And wandered with her down magnolia lanes,
And watched *below the spray-woofed* fall, the brook
That seemed a maid, who sitting at a loom,
Wove misty lace to decorate the rocks."

We cannot, however, consider his comparison of the moon to a spider a very happy one. But it is hit or miss with Mr. Abbey; generally, the latter.

We had also marked for quotation a picturesque instalment of the *Materia Medica*, liberally embellished with capitals, but we refrain. After all, Mr. Abbey has only followed the example which hundreds have set him, in putting before the public the crudities which he should have burned, or solaced himself with in private, and endeavoring to make a susceptible and receptive mind, not destitute of delicacy, perform work which requires creative vigor, if not originality.

The most hopeful thing in his book is the dedication to Richard Grant White "with gratitude for his friendship, and with admiration for his elegant scholarship;" though we should have thought that such a friend would have saved the author from publishing it.

We should say that Mr. Abbey's time would be more profitably spent in contemplating the elegant scholarship of Mr. White, and studying the method of its attainment, than in making attempts like the present at "werging on the poetical."

Our New Way Round the World. By C. C. COFFIN. Boston: *Fields, Osgood & Co.*

MR. COFFIN ("Carleton" of the Boston *Journal*) is sufficiently well and favorably known to satisfy the public that anything he produces will be at least interesting. He has the practised journalist's faculty of observation, and a brisk, decisive, sparkling way of describing what he observes, which is pleasant and stimulating even if not always in accordance with the strictest grammatical principles.

Our new way round the world is across the Isthmus of Suez by M. Lesseps' Canal, and across the American continent via Pacific Railway. Mr. Coffin begins his narrative proper with Egypt, ignoring Europe, "which has been so often described," and records his travels through that country, India, China, Japan, Malacca, and across the continent from San Francisco to New York.

He has certainly made a very interesting book, and though he too often exhibits the flippancy and superficiality which seem inevitably to be generated by journalistic experience, he is, on the whole, cautious and accurate.

One virtue which he possesses, and that probably the prime essential in what is intended to be a popular sketch of travel, is the faculty of seeing at once the salient features of his subject, and consigning details to limbo. His chapters on India and China are models of their kind, and condense a good deal of information on those countries; though we should say that if the author's studies had been less hasty, he would have hesitated before asserting that there are no monuments whatever of the Buddhist religion remaining in India, except the Caves of Elephanta. Not only do the ruins of vast temples and topes, such as Sanchi, exist in the interior, but Fergusson believes that the burial-place of the Buddha himself could be discovered by a competent party of explorers.

In a supplement to the work Mr. Coffin gives many valuable hints to those who contemplate making the same or a similar trip. The different routes of travel are indicated with their special attractions, the distance between places, the time required for the transit, and the best and most accessible works which furnish the necessary information concerning the countries to be visited. This is one of the "modern improvements" to works of travel which will doubtless be properly appreciated by those for whose benefit it is specially designed.

The publishers have made a handsome volume of it, beautifully printed, and profusely illustrated with wood-cuts, and it is to our mind the most readable contribution to our peripatetic literature which has recently appeared.

Warwick; or, The Lost Nationalities of America. By MANSFIELD TRACY WALWORTH. New York: *G. W. Carleton.*

THIS is one of those books which the critics invariably feel called upon to condemn, and which the public (or rather a certain portion of it) as invariably feel called upon to read,—a wild attempt by a writer with neither talent nor originality, to make industry and pedantic nonsense do the work of thought, careful observation, and culture. We had thought that Miss Evans, who has the glory of standing at the head of this school, had about marked the limit in this direction, but there is no forecasting the possibilities of the human mind when once the way is pointed out. One more such effort as Warwick (provided always the cyclopædias last) and Mr. Walworth may fairly dispute the supremacy with her. In portraying what never existed "in heaven above, in the earth beneath, or in the water under the earth," in making human nature ridiculous, and arraying polysyllables in sentences, and sentences in paragraphs, without the shadow of an underlying idea, he may justly claim equality; so also in depraving the classics, in describing "halls of dazzling light" and unimaginable luxuries; though we take it Miss Evans has gotten rather the better of him in the matter of the "Muezzin" and his "call to evening prayer." He actually respects geography enough to substitute the solemn strokes of the bell in the church-tower which strikes the hour of midnight in the wild howl of the winter gale.

It is impossible seriously to criticise a book like Warwick or St. Elmo, even if it were not useless. They are melancholy even more than they are ridiculous, for really great industry so lamentably misdirected is a spectacle which can never be simply laughable. When we recollect the cyclopædias which must have been skinned, the patience with which the polysyllables in Webster's Unabridged must have been gleaned, the time bestowed upon the literature of millinery and upholstery, even the mere labor of arranging the notes of his Commonplace Book in something like order and sequence, we see the tragic side of human folly. Their *raison d'être* is that, the value of cyclopædic knowledge being conceded, they deserve credit who put it in a picturesque and therefore attractive form. Then, too, we may take into consideration the possibility of their stimulating inquiry in the minds of our romantic youth who swallow them whole.

The picture of the poor author who starves in a garret because he cannot get books published, which, judging from the sketch, would be likely to

resemble "Warwick," is too good to be true, at least in our day and generation. If it were not fictitious, "Warwick" itself would have slumbered in manuscript, and American literature saved from the shame and reproach which the ready publication and success of such books bring upon it. But who would read a fiction in which everything was not fictitious?

"The Lost Nationalities" of the title may possibly be a subtle joke, or they may have wandered beyond the reach of the antiquarian during the progress of the work; but Mr. Walworth has certainly not brought them to light, and we cannot say that we should feel altogether hopeless for the future of literature if "Warwick" should go in the same direction.

The work is dedicated "To the Editor of the Home Journal, Morris Phillips, Esq., the accomplished scholar and genial gentleman."

Mental Photographs. By ROBERT STRATTON. New York: *Leypoldt & Holt.*

THIS is a very ingenious method of getting at a man's character and characteristics, by a series of leading questions which he is expected to answer.

It has long been a source of amusement to a limited circle, but we believe this is the first time it has been formulated and offered to the public.

The test is a crucial one, and if the questions are answered conscientiously (as they should be, or not at all), a man is writing himself out a much more reliable "certificate of character" than that which confers dignity upon Bridget. It will show what he is in his tastes, preferences, and aspirations, and what he is likely to become provided he can rise above the tyranny of circumstances; and we should say that in addition to the amusement afforded at the time, it will prove a much pleasanter memento of friends than the pictorial persecutions of the ordinary photographic album.

Our parlor wits (we had almost said witlings) will find it a legitimate opportunity for the display of their verbal sharpness, and several of the queries will put the best of them on their mettle.

The questions are printed upon the page in gilt letters, and space is left for the written answer. There is also a place for the ordinary album picture.

History of European Morals. By W. E. H. LECKEY, M.A. New York: *D. Appleton & Co.* 2 vols.

THE elaborate and very able review of this work, which forms one of our leading articles, renders any further remarks on our part unnecessary. Perhaps we may think that the critic, in pointing out some of Mr. Leckey's deficiencies, has failed to do justice to the extraordinary merit of his work, both as a wonderful aggregation of facts, and a subtle generalization from such facts; but he probably holds with Poe, that a book can best present its own claims to consideration, and that the critic's function is to sift out the chaff.

The "History of European Morals," and Herbert Spencer's "Principles of Psychology," published by the same house, are decidedly the most remarkable philosophical works which have recently appeared in this country.

BOOKS RECEIVED.

The Newcomes. By WM. MAKEPEACE THACKERAY. Household Edition. 1 vol. 16mo, pp. 551. Boston: *Fields, Osgood & Co.*

Ezeler Hall; A Theological Romance. New York: *American News Co.* Pamphlet, pp. 186.

The Gospel Treasury, and Expository Harmony of the Four Evangelists, in the words of the Authorized Version. Compiled by ROBERT MIMPRISS. New York: *M. W. Dodd.* 2 vols. in 1. pp. 944.

Foreign Missions, their Relations and Claims. By RUFUS ANDERSON, D.D., LL.D. New York: *Scribner & Co.* 1 vol. 8vo, pp. 373.

The Habermeister. A Novel. By HERMAN SCHMID. New York: *Leypoldt & Holt.* 1 vol. 16mo, pp. 379.

The Virginians. By WM. MAKEPEACE THACKERAY. Household Edition. Boston: *Fields, Osgood & Co.* 1 vol. 16mo, pp. 542.

SCIENCE.

The Meteoric Stream.—To the Editor of the *Albion*: Sir,—For the past four years I have given much attention to the meteoric stream of 12th and 13th November and the cold days of 12th and 13th May. On the 12th May, 1866, thermometer in hand, in the fields, and noting on paper the gradual fall of the same, as the time came when the ring of meteors intercepted the rays of heat from the sun, I had the good fortune, near Prince's-park, to fall in with yourself, to whom I explained my object, and in the next *Albion* you noted the remarkable inclemency of the day. On Wednesday last, the 12th May, after a continuance, since morning, of a sky unclouded, the thermometer on Albert Pier, at 3 p. m., in shade, was 51°, and in the full sunshine only 55°. I looked into the face of the sun without feeling any inconvenience. It was unnatural to look a cloudless sun of May full in the face and yet feel no heat. The meteoric stream was between, dissipating his rays, scattering their heat. On the following morning, in Sefton-park, at 8 a.m., the thermometer in the sunshine stood at 70°, and at 3 p. m., at 82°, and 54° in the shade. The meteoric stream did not intervene. At 11·30 the same night I was waiting at the Bootle Station for the train for Liverpool, due there at 11.35. There was a very beautiful display of the aurora borealis visible; and a party who had been long waiting the train told me that some time before a bright arch of light had spanned the sky. I saw such in 1833 or 1834. I stood then at the corner of Mount-pleasant and Rodney-street. A belt of light, the breadth of the street, arched the heavens from west to east, with its keystone in the zenith. I never saw such before or since; but from what I heard on Thursday I believe the

same must have appeared again a little before I reached the station. It was a glorious illumination with which to close the first civic banquet of the new borough of Bootle. On leaving Bootle the aurora was very much more distinct in the west than in the east. All the western side of the heavens was one broad sheet of light, but in the east pillars of light only—throbbing shafts of glory, in their pulsations ebbing and flowing. Now for the remarkable change. On reaching Liverpool I had to cab it to Sefton-park. As midnight came, and the sun passed the zenith at our antipodes, the rays of the aurora rose more and more numerously to the eastward, and the western display decreased, so that by 12.30, when I reached Sefton-park, the west was in darkness. My mind is fully confirmed upon the meteoric stream being the cause of the display. About the 12th November we pass through the stream, and what meteors fall within the earth's attraction show themselves whilst burning in our atmosphere. Now, on the 12th May, at the opposite part of the circle, the stream of meteors, far away out of our atmosphere, do yet, by intervening between us and the sun, dissipate the heat from his rays. Now the greatest display of the meteors of last November was on the 13th, and the earth, like a gallant ship sailing over the broad ocean of space, did, on the night of the 13th instant, float over the meteoric mass, and the sunlight from below, playing upon its million particles, shot upwards all around her bows as she ploughed over them. I have seen the zodiacal light in the tropics often, and am more and more convinced it also is but the meteoric stream circling round our sun like the ring round Saturn. Twice a year we pass it, now through it, now over it. Yours respectfully, ORION.

The Globe Losing Heat and Becoming Smaller.—The globe is continually, though very slowly, losing heat; it grows colder in a very small degree, and suffers contraction in the same small degree. It appears that since the days of Hipparchus, about 2,000 years have passed without any change being observed in the length of the day, and this is sometimes urged as a reason for not accepting the explanation of the depression of seas and the rising of mountains, which geologists have founded on the "refrigeration of the earth." But it only proves, what is quite well known from other considerations, that the process is very slow. The globe then is suffering contraction; it is smaller than it was: but if this were all, no important geological explanations could be made to depend on it. If *the whole globe* were to undergo contraction by loss of heat at the rate of the red granite of Peterhead, viz., 1-200,000th of a unit of length for each 1 degree of Fahrenheit, the diameter would change for each degree, say 7914-200,000th, about 1-25th of a mile (209 feet). The alteration of the length of the day due to such a general change of dimensions would be about four-tenths of a second of time. Two hundred and nine feet of change of radius in a globe of uniform composition would produce no sensible effect on the phænomena of elevation and depression on the surface of the earth; nor any important effect on such a globe, partly dry and partly covered by water. But in a globe subject to unequal expansion or contraction of the mass, as our semi-fluid earth must be, the effect of even one degree of cooling could not be otherwise than very effective in producing geological change. It must not be thought for a moment that reduction of temperature has ever been or ever can be accomplished at a uniform rate through all the mass of the globe. At the epoch of solidification of the surface, with a temperature of about 2,058 degrees, isothermal zones began below the surface; as time passed on they descended lower and lower; so that at present the temperature of 2,058 degrees may be found at about twenty miles while the surface heat is about 58 degrees. The surface has been cooled 2,000 degrees; at five miles in depth 1,500 degrees; at ten miles 1,000 degrees; at twenty miles 0 degrees.

Temperature of the Sea.—Drs. Carpenter and Wyville Thomson have succeeded in establishing a remarkable physical law regarding the temperature of the sea. To the almost universal law that heat causes expansion, and cold contraction, of the particles of a body, water has long been known to constitute a striking exception. When any body of fresh water is exposed to a reduction of temperature, as the surface layer becomes colder than the remainder of the fluid, it becomes likewise heavier, and sinks, therefore, to the bottom, its place being supplied by a warmer and consequently lighter stratum. This process is repeated until the temperature has sunk to 39° Fahr., when the law ceases to act Below this point—termed the maximum density of water— any additional reduction of temperature causes expansion, instead of contraction, and consequently the surface-layer becomes and remains the lightest, and does not sink as before to the bottom. It is obvious that, if this deviation from the regular law were not provided for in the case of water, all our lakes and rivers would begin to freeze from the bottom upwards, and would, in our climate, become ultimately entirely converted into ice. It has always been believed that what we have just stated held good for all water, whether fresh or salt; hence the statement of Sir J. Herschel that, "in very deep water all over the globe a uniform temperature of 39° Fahr. is found to prevail;" it would almost necessarily be the case if the maximum density of salt water, like that of fresh, were reached at this temperature. We now know, however, that the law must be differently stated for sea-water. By sending down thermometers attached to the sounding line, Drs. Carpenter and Thomson have proved that in certain areas—supposed to be those traversed by cold currents from the polar regions—the temperature at the bottom was as low as 32° Fahr., whilst that of the surface might be as high as 53° Fahr., a difference of more than 20°. This great difference is easily accounted for by the existence of cold polar and warm equatorial currents; whilst the very low temperature of the bottom is explained by certain experiments of Despretz, establishing beyond a doubt the fact that "sea-water, in virtue of its saline impregnation, contracts continuously down to its ordinary freezing-point, which is below 28° Fahrenheit."—*Spectator.*

Curious Discovery.—A paper was recently read before the American Association for the Advancement of Science which stated that on the southern

shore of Lake Superior, in Marquette county, Wisconsin, were found remains of long canals and dams constructed by the beavers for the purpose of transporting their cuttings, consisting of trunks of trees two or three feet long, from the places where trees had fallen to their lodges. Some of these canals were 300, 400, and 500 feet long. They were generally three feet wide, with an average depth of three feet. In order to maintain a continuous depth of water, they made dams at certain distances, and followed the Chinese plan—to whom the lock was unknown—of drawing their cargo from one level to another.

Diet.—The French Academy has been listening to an elaborate paper by M. Cabasson on the effect of diet on the moral and intellectual nature of man. He has been subjecting himself to various experiments. He tried coffee, without solid food, directly he awoke, and his intellectual powers wonderfully increased, but his temper was not improved, and he became coldly egotistical and excessively disagreeable—a condition only remedied by partaking of a good breakfast, which made him much more amiable, if less profound. We believe to a considerable extent in this theory. A good breakfast does make one feel comfortable, and a good dinner expands our organs of benevolence remarkably, even if, as it is sometimes the case at Greenwich in the whitebait season, a slight obfuscation of the intellectual powers—clearly traced by philosophers to the chemical action on the tissues of new potatoes and salmon—is occasionally apparent. This philosophy of good living is a very comfortable philosophy, and we hope experiments will be made on the most liberal scale, especially selecting for the purpose some thousands of poor people who, not being accustomed to good eating and drinking, may be expected to exhibit the most interesting and satisfactory results.

The Sun.—There are at present two clusters of large spots passing towards the western limb of the sun. The largest consists of three spots. The diameter of this group, inclusive of the deep dark penumbra, which makes the whole appear almost as if it were one large spot, is at least three times the diameter of our globe. The two large spots are jagged around the edges, and of no regular form. They are said to have appeared just as if some tremendous convulsion in the body of the sun at that part had thrown the incandescent envelope aside in all directions. The other group, about some 24,000 miles distant from the former, consists of four smaller well-defined spots. These two groups will, in a few days, become smaller in appearance as they pass off on the western side. Another spot has come in sight on the eastern limb.

A Great Project.—The municipal council of Bordeaux have now under consideration a scheme which may with little hesitation be pronounced as having for its object the grandest, most important, and most economical work that has been proposed for centuries, and it is one, moreover, which especially interests the commercial world of Great Britain. The project is simply the cutting of a great ship canal from the Bay of Biscay to the Mediterranean! The proposer, M. Staal de Magnoncourt, estimates the cost of the work at 442,000,000f., less than 18,000,000*l*, and the time necessary for its completion at six years. It would form a direct line of communication with India by the Isthmus of Suez, and save the whole circuit of the Portuguese and Spanish coasts in the case of ships from England or any of the northern ports of Europe. It is probable that England might derive some benefit, commercially, from such a scheme, but it is also probable that the possession of Gibraltar might not prove as valuable as it is at present assumed to be. As regards the practicability and comparative economy of the project there cannot be a doubt. Let any one cast his eye over the map of France, and he will see that if a straight line be drawn from Bordeaux to Toulouse, it will touch the coast of the Gulf of Lyons not far from Perpignan. From Bordeaux to Toulouse the Garonne is a navigable and busy river, so that over two-thirds of the line it is only a question of widening and correcting a waterway already in existence. From Toulouse to the Gulf of Lyons there exists the Canal du Midi, and by means of these an immense traffic is carried on between the southern and western departments of France. The line of water exists already; all that is required is to deepen and straighten it: and if this could be done in half the time mentioned, at double the cost, it would be the most economical piece of work perhaps that was ever executed.—*Engineer.*

Vast ruins have been discovered in the Zulu country in South Africa—obelisks with colossal carvings, terraces, and halls of hewn stone, or cut out of the solid rock. The natives regard them with mysterious awe, and keep strangers from them, for fear that if they are approached no rain will fall for three years.

A Lost Nation.—A writer in the *Natal Mercury*, under date of the 2d of Feb., 1869, says, when treating of the ruins of Simbaoe:—"A day's march from Andowa, between two hills, at the end of a vast and fertile valley, are the ruins of Axum. To this day incredible flights of stone steps conduct the traveller up to the summits of the hills, in one of which are found deep grottoes and vast halls, cut out of the rock and ornamented with columns. There, according to the traditions of the country, is the tomb of the Queen of Saba. The adjoining valley, shaded by majestic trees, is filled by the remains of the city, consisting of huge blocks of stone. Very little of the *débris* reveal their former purpose. There may, however, be distinguished two groups of fourteen or fifteen obelisks, thrown down. Seven of them are covered with ornaments, and are not less than thirty-six feet in length. These masterpieces of ancient architecture reveal to us the fact of an ancient civilization in the heart of Africa, which has disappeared again thousands of years since." Niebuhr tells us of a mighty Abyssinian empire existing here, mentioning in particular Saba, and says it was so powerful that even the Roman and Parthian strength could not prevail against it. This last statement was taken from a Greek inscription found among the ruins, engraved in stone. On the reverse side is another engraving, in some ancient language, which has not yet been deciphered. The savage tribes guard these ruins with jealous care. No living animal is allowed to be

killed in them, no tree permitted to be destroyed, everything connected with them being held sacred, as belonging either to a good or evil power. A missionary, who penetrated within a short distance of the ruins, writes:—"In this country were also found some very old guns, in a hole in the mountain. We got one of the locks of these guns, and found it to have a wheel outside, with cogs or teeth; and a tradition exists that they came from these ruins. The Basutos often tell us, when asked if they acknowledge God, about the big stones in the Banyai, where all created things are to be seen, even sphinxes, pyramidal-shaped buildings, and catacombs."—Letter in the *Athenæum*.

Discovery of a Roman Tesselated Pavement.—An interesting discovery has been made within the last few days of a Roman tesselated pavement, at the corner of the Poultry, where men were excavating for the formation of the new street from the Mansion House to Blackfriars. The pavement lies about 17 feet from the surface of the ground, and, as far as can be at present ascertained, is in excellent preservation. It is evidently of some extent, and possesses an ornamental pattern indicating a design of great beauty, elaborately executed in small tesseræ of various colors. It belongs to the finest class of such remains, and is only equalled by the pavements discovered in 1803 in Leadenhall Street, in 1805, under the Bank of England, those found in 1841 beneath the late French Protestant Church, Threadneedle Street, and others near the old Excise Office, together with an interesting example exhumed some two years since in excavating near the present site of the foundation of the Union Bank of London. Adjoining the pavement are the foundations of Roman walls, with other evidences of extensive buildings. The works, however, having only just commenced, it is possible that many other interesting remains of Roman works may be discovered.

The Variations of the Compass.—A paragraph appeared some time ago in the frontier papers announcing that Mr. J. H. Davies, of Colesberg, had invented an instrument for ascertaining with accuracy the variations of the compass from local attraction or other causes, which are so puzzling and sometimes dangerous to navigators. Mr. Davies is now in town, and his invention has undergone a most severe and lengthened examination at the hands of Sir Thomas Maclear and Mr. Tracy, the sailing-master of the Racoon. We are glad to say that their report is most favorable, and Mr. Davies proceeds by the Roman to submit his invention to competent authorities in England. He is backed by a recommendation from his Excellency Sir P. Wodehouse, who has taken a warm interest in the matter. We have ourselves carefully examined Mr. Davies' models, and without dogmatically pronouncing upon the feasibility or otherwise of the invention, are happy to bear testimony to its extreme ingenuity. The idea developed by Mr. Davies is really fine, whether or no it turns out to be capable of practical application. —*Cape Argus*, April 19.

ART.

It is a singular fact that, in modern civilization, sculpture has never, even in a single instance, attained the position which it held almost without a disputant in the old. Even in England, where the last half century has seen such a prodigious development in the Fine Arts, notwithstanding the Elgin Marbles and other specimens of the antique which have been secured for her galleries, Sculptors have scarcely begun as yet to claim a share of the attention monopolised by the disciples of the sister art. Among us it is practically non-existent. The *Saturday Review*, in a notice of the present exhibition at the Royal Academy, says:—"Sculpture has never yet in England succeeded in obtaining equal honours with her sister art. Though the elder of the two, and by old confession the higher and the more intellectual, among us she has everywhere to yield the precedence to Painting. She hardly brings money to any of her followers, except through the prosaic practice of portraiture; her followers, with a few illustrious exceptions, are mostly untrained men, who in every point rank, and deserve to rank, below their brother painters; we must confess in sadness that they know little about her, and the British public, by a natural result, knows less. And nowhere, it is a notorious fact, has this apathy to Sculpture been more marked than it was in Trafalgar Square. The two series of cellars, and whatever, in pre-historic times, preceded them in Somerset House, are now, happily, things of the past. Those rooms, to the uninitiated, always seemed to have been constructed on purpose to allow the works of the three or four Academician sculptors to be tolerably seen, whilst the works of all outsiders were ingeniously doomed to a kind of limbo; exhibited so far as the locality was concerned, but in every other respect worse than invisible. And when we look at certain names on the list of recent Academical sculptors, and compare their works with those which a few contemporaneous outsiders have produced, it would be absurd to wonder at an impulse which may have been only one of simple self-preservation.

However these things were, *nunc tandem redit animus;* and, in that splendid series of rooms which we owe to the wise liberality of the present Academy, Sculpture has at least found a handsome and an accessible habitation. Yet, even here, and with a full confidence that there was every desire on the part of the building Council to do justice to this art, we cannot help observing that the more flourishing and brilliant younger sister has still contrived to maintain her social supremacy." Royalty is represented at the Exhibition by H. R. H. the Princess Louise. She exhibits a bust of her mother, Queen Victoria, which is on the whole rather favorably criticised.

It seems that the English critics have to complain of the same abuses in the management of their Academy which have so long furnished the text for accusations of our own, and which we referred to last month, viz: the appropriation of the space

to the second class work of Academicians and Associates to the exclusion of better work. One of them says of the Exhibition now in progress in London, that:—"By common consent some of the worst pictures in the Exhibition are by Academicians and Associates. Of the former there are at least seven, of the latter there are at all events two, who could have little chance of a place on the walls had they to rely on merits instead of on vested rights. It is in mercy that such works, which usurp the best places and disfigure the Exhibition, are passed quietly by without notice. The President possibly hinted at some of these sad cases when he said that it might be hoped the Academy would find itself in a position to extend charitable aid to the less successful members of the profession."

How this abuse can be accounted for we cannot understand, (of course we would not hint favoritism) except on the assumption that an Academician can do nothing ill. We fear, however, that the artists and public will fail to appreciate this until some test of admittance is adopted different from any now in use.

As intimated last month the National Academy of Design has entered upon a course of reform which will soon remove the most conspicuous abuses. It has amended its constitution so that Academicians and Associates may be elected from the general body of artists throughout the country, and adopted an additional section which provides that "there shall be held stated meetings of the Academy on the evenings of the second Wednesdays of November and February each year for the transaction of general business; and said meetings may adjourn from time to time as may be deemed expedient." It is also provided that the President and Vice-President shall not be elected for more than two consecutive terms; that three Academicians, not members of the Council or officers of the Academy, shall constitute the committee for selecting the works of art and arranging the exhibitions of the Academy for the year; no member of the committee to be eligible for two consecutive years; and that the officers, during their term of office, shall have the entire control of the affairs of the Academy, subject to the control of the Board of Academicians, provided that the power to mortgage or otherwise dispose of the real estate belonging to the Academy rests solely in the Academicians themselves.

The fabrication of Egyptian mummies is carried on in Paris on a very large scale. One man alone, we are told, has manufactured no less than 800 "relics" of the Ptolemian era for provincial museums. This outdoes even Barnum in his own line. The export business in counterfeit mummies extends over half the globe, even to Egypt itself, whence they return to Europe with a sort of guarantee of genuineness. A skull, two fillets of veal, a dog's skin, and some linen bands, suffice for all that was mortal of a Cheops, a Pharaoh, a Ptolemy, or a Cleopatra. How this takes the romance out of the lines by Horace Smith to a mummy.

And thou hast walked about, how strange a story!
In Thebes's streets, three thousand years ago.
THE GALAXY.

A new method of speculation has been invented in Paris, which will doubtless redound to the benefit of the artists. A gentleman of culture and taste collects a gallery of pictures by distinguished artists, throws it open to the public, has it noticed by the critics of the press, and then sells it at auction. The last two or three ventures having been eminently successful, the trick is not likely to lack imitators, either there or elsewhere.

Frank Buchser has been commissioned by the Swiss Government to paint portraits of the great men of our nation, for its capitol. He has already finished those of Wm. Cullen Bryant and General Sherman, and is now engaged on that of ex-Secretary Seward.

Count de Waldeck, of Paris, has sent to the Fine Arts Exhibition in that city, a picture representing two hundred and fifty-five persons. The venerable artist is 103 years old, enjoys excellent health, and takes vigorous walking exercise every day.

A new marble for sculpture has been discovered at Laas, Austria. It is said to resemble that of Paros, but is somewhat coarser in grain, and has a slight golden tint which artists consider preferable to the cold whiteness of the Carrara and Serravezza marbles.

Sir Edwin Landseer appeared as a witness in a London police court, recently, in a case of cruelty to animals, and made an indignant protest against the barbarous practice of cropping dogs' ears.

Sir Edwin Landseer has sold his great work in the Academy—the "Swannery invaded by Sea Eagles"—to the Marquis of Northampton, for four thousand guineas.

A London photographer, who has photographed nearly all the Royal family of England, has sold £35,000 worth of *cartes de visite* of its various members.

There are 2,452 *pictures* in the present exhibition at the Royal Academy, London, besides 758 designs and sketches, and a fair display of sculpture and engraving.

Over seventy thousand people visited the French Academy on the opening day of the Exhibition this year.

VARIETIES.

Thomas Carlyle and Robert Browning recently took tea with Queen Victoria.

The grim, coarse, unpolite Trumbull of Mr. Trollope's last novel, "Phineas Finn," is said by an English Liberal organ to be a portrait of the Right Hon. John Bright. Mr. Trollope declares the assertion to be untrue and unjustifiable.

The late Lord Brougham had such an aversion to trouble about money matters that he made over everything—ex-Chancellor's pension, house and and, books, plate, furniture—to his brother William, who in turn provided for current expenses.

Branding the same man more than once, in the British army, for desertion, which had been abo-

lished by recent Parliamentary statute, has been revived since the courts-martial have been deprived of the luxury of the cat-o'-nine-tails.

The effect of this revival has been, to quote the *Pall Mall Budget*, that "several sentenced men, already indelibly branded, have been further marked with two or three additional letters, such as an extra D., as well as B. C. for 'bad character'; and with this gentle assistance towards gaining an honest livelihood have been discharged from the service, with a fair prospect of falling within the provisions of the Habitual Criminal Bill, possibly of being further tattooed by Colonel Fraser of the city police, and then, having died in prison, of presenting an appearance at the resurrection which will puzzle their celestial as much as their existence had puzzled their terrestrial guardians."

Without following the poor fellows into the next world, we should think that the War Office might devise some more humane method of maintaining the discipline of the service.

Dr. Willard Parker says:—There have died in New York within a few years three excellent clergymen, all of whom would now be alive had they not used tobacco.

The difference in the operation of tobacco and alcohol is this: while alcohol causes tangible changes in certain organs, tobacco gradually lowers the vital tone of the whole system, so that the life ends sooner than it ought to.

It is calculated that there are 235,000 smokers in New York now. At some hotel bars in the city a thousand dollars a day are spent for tobacco and rum. A "moderate smoker" uses say not over four cigars daily; and immoderate ones ten or fifteen. Cigars of good quality cost fifteen cents apiece at wholesale, and twenty-five cents at retail.

Call the price, however, only ten cents; if these 235,000 city smokers are "moderate," they are paying ninety-four thousand dollars a day for cigars, without mentioning "drinks." This is an expenditure of thirty-four million three hundred and ten thousand dollars a year for no good, but for harm.

Paste Diamonds.—The more valuable an article is the more it is counterfeited, and the greater the perfection to which falsification is carried. The diamond has been so successfully imitated that he must be an expert indeed who can tell the false from the true. A method which any one can apply, or easily get applied, has been a desideratum; but the want exists no longer. If you have a doubtful stone, put it, or cause it to be put, into a leaden or platinum cup, with some powdered fluor-spar, and a little oil of vitriol, warm the vessel over some lighted charcoal, in a fireplace, or wherever there is a strong draught, to carry away the noxious vapors that will be copiously evolved. When these vapors have ceased rising let the whole cool, and then stir the mixture with a glass rod to fish out the diamond. If you find it intact, it is a genuine stone; but if it is false it will be corroded by the hydrofluoric acid that has been generated around it. A small "paste" diamond would disappear altogether under the treatment. They who profit by this receipt have to thank Signor Massimo Levi, an Italian chemist.—*Once a Week.*

Sir Henry Rawlinson has found Eden.—He maintains that the Babylonian documents in our possession will give us the whole history which is recorded in Genesis from the time of Abraham. The Garden of Eden, he asserts, is the primeval name of Babylon.

Big Bible.—Who wants to see "the largest Bible in the world?" The late Mr. John Grey Bell, of Manchester, an untiring print-collector and book-hunter, devoted many years to the illustration of the Bible by inserting in Macklin's folio edition above a thousand original drawings and photographs, and nearly ten thousand engravings, with 360 specimen-leaves of old and rare editions of the Bible. The result was sixty-three handsomely-bound folio volumes, with double the number of illustrations contained in the famous Bowyer Bible of forty-five volumes. This big Bible is now on sale.—*Athenæum.*

Burying Alive.—Great efforts have been made by scientific men to discover some rule by which death may be infallibly indicated. For years the French Government has held out a standing reward of a large amount of money to any one who would discover and communicate a satisfactory test, other than that of actual decomposition, indicated by the skin turning to be black and blue and green, which is conclusive on the subject; but in cold weather this may not take place in many weeks, and to "keep the body" so long would be inconvenient and objectionable on several accounts. A method has recently been given to the French Government which will probably take the prize. Hold a lighted candle to any portion of a body, a blister will soon rise; if on puncture it gives out a fluid substance, death has not taken place; if it emits air only, it is perfectly certain that life has become entirely extinct, for which we offer but one reason among others: In case of actual death the blood is congealed—in a sense, there is no moisture, simply a little air; this, being rarified under a flame, raises up the skin; if there is life, the flame causes an inflammation, and nature, in her alarm, sends increased material there for repairs, a kind of glairy fluid, and this, being sent there in excess, causes the skin to rise. Inability to feel the pulse or heart beat, cold skin, or dew on a bit of glass—none of these are conclusive, as there has been life when none of these were observed.—*Hall's Journal of Health.*

Constancy of Woman.—There is not an accomplishment in the mind of a female more enchanting, nor one which adds more dignity and grace to her person than constancy. Whatever share of beauty he may be possessed of, whether she may have the tinge of Hebe on her cheeks, vying in color with the damask rose, and breath as fragrant—and the graceful and elegant gait of an Ariel—still, unless she is endowed with this characteristic of a virtuous and ingenuous mind, all her personal charms will fade away, through neglect, like decaying fruit in autumn. The whole list of female virtues are in their kind essential to the felicity of man; but there is such beauty and grandeur of sentiment displayed in the exercise of constancy, that it has been justly esteemed by the dramatic poets as the chief excellence of their heroines.